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AN EXAMINATION OF THE EFFICACY OF MODULES IN THE REMEDIAL TEACHING AND LEARNING OF FRENCH AT THE JUNIOR HIGH SCHOOL LEVEL

by

© SUSAN CATHERINE POULES

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

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THE UNIVERSITY OF ALBERTA

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled AN EXAMINATION OF THE EFFICACY OF MODULES IN THE REMEDIAL TEACHING AND LEARNING OF FRENCH AT THE JUNIOR HIGH SCHOOL LEVEL submitted by SUSAN CATHERINE POULES in partial fulfilment of the requirements for the degree of Master of Education.

L Lmod

Supervisor

Date August 26th, 1978

ABSTRACT

The main purpose of this study was to find out whether modules could be used effectively, to help those students who had failed to reach the required standard after the regular class presentation of a unit of French grammar. The investigator also wanted to find out whether all students benefited equally from using the module, and whether students perceived the module as a good device to acquire the concept.

Two similar modules were developed by the investigator, one for Grade 8 students and one for Grade 9 students. Each module included tape, text, and picture sheet; five types of presentation and explanation of grammar; and self-correcting exercises.

Three classes of Grade 8 and three classes of Grade 9 students participated in the study. All the students were given a pretest. Students who were judged to have already reached mastery level, on the basis of the pretest results, were eliminated from the study. The remaining 115 students were matched on the basis of pretest scores, and then assigned at random to either the experimental or control groups. The students in the experimental groups worked on a module for two forty minute periods. After working on the module, the students were asked to answer in writing the question: "Do you think you have learned anything from working on the module?" Finally, a post-test was given all the students in the experimental and control groups.

The results obtained from the pre- and posttests were subjected to statistical analysis. Students' replies to the written question, and their comments, were examined and compared. The main findings of the study were as follows:

1. The mean pretest/posttest gains for the experimental groups were statistically significantly higher than the pretest/posttest gains for the control groups in both Grade 8 and Grade 9.
2. Students in the experimental groups were divided into three sub-groups categorized as high, medium, or low achievement in French, as measured by term marks. No statistically significant differences were found in the pretest/posttest gains of the three sub-groups.
3. Some individual students in the low achievement groups achieved very high pretest/posttest gains. If the learning styles and other characteristics of such students could be identified, it might be possible to predict which students would be likely to benefit significantly from using modules.
4. Students reactions to the module were positive. They perceived the module as a good device for acquiring the concept.
5. The additional comments made by students indicated a preference for the tape, text, and picture sheet combination. Specific areas in which students found the modules helpful were also isolated.

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CHAPTER I

THE PROBLEM

Introduction

Accommodating the individual differences of students and helping students who fail to achieve the required level of competence are interrelated problems facing the teacher of French. In recent years increasing attention has been paid to various forms of individualization as a means of attempting to solve these problems.

Individualization of instruction is not new. Grittner (1975) points out that teachers have always attempted to accommodate individual differences. He suggests that the one-room school, in which each student took his work up to the teacher's desk, was in fact a form of individualization. The Dalton Plan and the Winnetka Plan of the 20's and 30's are examples of early attempts at rationalized individualization of instruction.

In the 1960's and 70's there has been a growing interest in and movement towards individualization of instruction in Modern Languages, amongst which is French. This interest reflects current educational thought and arises from four main sources: firstly, from increasing concern with the learning of content; secondly, from attempts to base the goals and means of instruction on a well-defined set of philosophical positions; thirdly, as a result of psychological research

into the nature of the learner and of the learning process; fourthly, as an answer to more accountable results of the teaching/learning process.

In the past content has been seen as a sequential body of material to be mastered by all students. Goodlad (1972, p. 13) observes that in the past curriculum reform has tended to be concerned with content, rather than with goals and means. He states that in the twenty-first century the most important concerns will be the issues that face us today and that these issues can be summarized in the following question:

> What are the goals of human behavior and the means of modifying it?

Goodlad asserts that the content of instruction is less important than the goals of education. The most important preoccupation of educators should be to attempt to conceptualize the goals of education and to formulate the best means of reaching these goals. Individualized learning represents one attempt to reconcile goals and means, while respecting the rights of the individual and accommodating individual differences. The implication for second language teachers is clear. How can one justify presenting the same content to students who not only vary in ability but also have different needs in terms of the goals that are relevant and appropriate to them?

Impetus for individualization has also arisen from attempts to develop a system of instruction which is based on a set of beliefs about the nature of education and the rights of students. Bechtol (1973, p. 6) isolates four main goals that the advocates of

individualized instruction wish to achieve. The underlying philosophy and beliefs implicit in these goals will be examined.

The first goal is to translate traditional skills into behavioral objectives. Some writers refer to this concept as "teaching for mastery." This goal is based on the belief that, given sufficient time, it is possible for any student to master any unit of content. Individualized learning programs in French which use the sequential minimal step design are rationalized on the basis of this belief. Advocates of teaching for mastery assert that this system has psychological advantages for the learner: being encouraged to work on one conceptual unit until it is mastered is said to remove the frustration of failure and the consequent lack of self-esteem.

The second goal is to improve the student's self-concept. This is usually achieved by establishing good teacher/student relationships, which focus on the needs of the student. This concept is sometimes referred to as "humanizing" education. Closely allied to this goal is the belief that individualized programs allow opportunities for choice and promote creativity and self-actualization (the highest form of psychological development, according to Maslow's hierarchy of needs) on the part of the student.

The third goal is to help the student develop skills which will enable him to learn independently. This goal reflects the belief that it is more important to help the student to "learn how to learn" than to insist he assimilate a certain subject content. The enquiry method advocated by Holt (1964) and Postman and Weingartner (1969) represents an attempt to focus instruction towards this goal, to the

virtual exclusion of content goals. It is difficult to envisage using this method, to the exclusion of all others, in a second language course, where learning, at least in the early stages, must be cumulative. However the development of good learning strategies on the part of the student should be one of the aims of the second language teacher. A form of individualized instruction which offers a wide choice of learning styles should enable the student to choose the style or styles which suit him best.

The fourth goal is to provide a relevant curriculum. Individualized programs should provide the student with a wide choice of study areas, with the teacher becoming a guide and resource person, rather than an instructor. This goal reflects the belief that students have rights. Since their lives will be affected by their educational experiences they have the right to several chances to demonstrate their mastery of basic skills. They have the right to know what they are expected to learn and how they will be graded. They have the right to a degree of choice of study areas and to time and help, to enable them to achieve their goals.

If these goals are attained then the learner will have profited from the time and money spent in acquiring the content.

Although individualization of instruction may offer a means of reconciling the goals and means of instruction there are disadvantages to totally individualizing French courses at the junior high school level.

Logan (1973, p. xv) states that individualization of instruction in French necessitates extensive re-education of teachers and

preparation of material, due to the complexity of setting up individualized programs:

> Basically the problem arises not because of any lack of understanding of individualization, but because of the logistic problems involved in individualizing the educational activities of thirty or more students all present at the same time.

The findings of the Stanford Conference of 1971 on Individualizing foreign language instruction support this opinion.

Also, commercially produced courses are expensive, require extensive hardware and support personnel and usually accommodate only one variable, rate of learning.

Howes (1970, p. 73) points out that most courses accommodate variations in pace by using a series of sequential steps. He states that this system may in fact slow students down:

> . . . since they must work through materials which have been sequenced in such small amounts as to make it possible for even the slow student to accomplish the task.

Madeleine Hunter (1971) affirms that little effort has been made in commercially produced courses to accommodate differences among students in preferred modes of learning, or to provide variety of content.

The use of totally individualized courses has also tended to result in students working in isolation. Grittner (1969) points out that students appear to need social interaction as well as independent study, especially in a second language where the new code should become a tool for communication.

Morrey (1971) presented a report of a research study on student attitudes towards individualization to the Stanford Conference.

Student criticism of individualized learning programs centered on two main areas: motivation and materials. Many students stated that they experienced difficulty in establishing self-motivation. A significant number of students also criticized individualized learning programs on two aspects connected with materials. There was too much pressure to complete a certain amount of material by a deadline. The units were too long.

A short module, independent of existing courses and designed to fit specific needs could offer choices in content, goals, learning styles and speed of progression. In the traditional class at the junior high school level modules could be used to present the same material in different forms (to accommodate different learning styles), for remedial work, as a supplement for more advanced students, as a complement for less advanced students, to present culture, to vary content in function of a diversity of goals.

Theoretically, such a module offers the advantages of individualization without the drawbacks which have been encountered in the use of individualized learning programs. The purpose of this study is to evaluate the use of modules in the traditional class.

Need for the Study

The disadvantages for the individual learner of the traditional method of teaching French--one teacher and 30 or more students--are self-evident. Sharon Hellman (1972) points out that it is impossible to help the slower students in the traditional class. The

disadvantages of the traditional class in this respect are summarized by Harlan Lane (1964, p. 251).

> When classroom practises permit active participation by the student at all, it is usually in the form of repetitive drills which are presumed to "fix" or "stamp in" the material through repetition alone. The "brighter" students "soak up" the material and become "enlightened." Dull students who fail to learn are simply not "sensitive" or "receptive."

Most teachers are well aware of this problem but time constraints in the French class make it impossible for the teacher either to accommodate individual differences or to help students who have difficulty in keeping up with the rest of the class.

This problem is stressed by Shepherd (1972, p. 135):

> There is simply not enough time to meet each student individually (in the teacher-centered classroom); they are lumped together in groups. There is not enough time to choose the methods most appropriate for each student; there is one method for all.

It would be unrealistic to expect a teacher to design and implement an entire individualized learning program. Elna Carroll (1971, p. 178) suggests that this would be an ideal procedure as teachers could tailor courses to suit the needs of their own students. However she also points out that such a procedure requires specialist expertise and is extremely time-consuming:

> Development of such materials can only be achieved when the teacher is given extensive release time to devote to this project or when he is willing to spend many days and weeks of his own time to do so.

Moreover total individualization may not meet the needs of the student at junior high school. This question will be further discussed in the review of the relevant literature.

Short, non-sequential modules, independent of existing courses, would offer a means of both helping students who have specific problems and of accommodating individual differences. Since the modules would be short and specific, preparation time would be minimized. Short modules could be produced commercially or by individual teachers. Stern et al. (1975, p. 23) point out that the only commercially produced short modules, not linked to individualized learning programs, are those produced by O.I.S.E. on culture.

Statement of the Problem

The main purpose of this study is to evaluate the efficacy of modules in the remedial teaching and learning of French at the junior high school level.

The sub-problems stated as questions are:

1. Is the use of modules an effective way of helping students who have difficulties on specific units of grammar to reach the required standard in written production?
2. Do all students benefit equally from the use of the module?
3. Do students perceive the module as a good device to acquire the concept?

Definition of Terms

Module. A module is a unit independent of existing programs, dealing with one specific aspect of learning a language. A module can present information on a given subject, teach a linguistic feature or provide practice. Students work on modules individually.

Learning Activity Pack(age) or L.A.P. A L.A.P. is one of a series of units which are sequentially linked to form an individualized learning program. Some writers also use this term as an alternative to "module."

Individualization. The term individualization is used to describe a learning situation where attempts are made to accommodate individual learner differences.

Individualized Learning Program or I.L.P. An individualized learning program usually consists of a series of L.A.P.'s. An individualized learning program is not necessarily different for each student but aims to be appropriate for each student. I.L.P.'s offer choices in four main areas: objectives of learning, rate of learning, method of learning and content of learning. Choices may be offered in only one or two areas, in which case the program will be only partially individualized. To be fully individualized choices must be offered in all four areas. Most I.L.P.'s include performance objectives, learning activity packages and criterion referenced testing.

Traditional class. For the purposes of this study the term traditional class is used to refer to a teaching situation where

there is one teacher and about thirty students, where all students are following the same program, and where presentation of material, work set, required standards, etc., are the same for the whole class.

Performance objective. A performance objective is a statement of expected student output, explicitly expressed so that students know what they are expected to do. A performance objective consists of four parts: purpose, student behavior, conditions, and criterion.

Design of the Study

The sample consisted of three classes of Grade 8 students and three classes of Grade 9 students. The pretest-posttest control group design (Campbell and Stanley, 1973) was employed. The classes were selected at random from three Junior High Schools. After the pretest, students scoring full or almost full marks (27 to 30) were eliminated. The remaining students were matched on the basis of their scores and then assigned at random to either the experimental or the control group.

Hypotheses

The statistical analysis of data is directed toward the following null hypotheses:

1. There is no significant difference between the experimental and control groups on the posttest scores controlled for differences on the pretest scores.

2. There is no significant difference in pretest/posttest gains among groups of students categorized as having high, medium, or low achievement in French, as measured by term marks.

Delimitations

1. The sample is taken from six classes and from three schools.
2. The sample is taken from two grades.
3. The study is restricted to two forty-minute periods, for each group, excluding the pre- and posttests.
4. The study is restricted to written production on two grammatical units.

Limitations

1. The short time span may constitute one limitation.
2. The size of the sample may also be a limitation.
3. The results of this study cannot be extended to modules which aim to increase vocabulary acquisition or to present culture as it centers on the acquisition of grammatical elements.

This chapter has introduced the problem and has discussed the need for the study. The confines of the study have been defined. In the second chapter the relevant literature will be reviewed.

CHAPTER II

REVIEW OF THE RELEVANT LITERATURE

Individualization of Instruction in French

Individualization of instruction in French represents an attempt to make teaching appropriate to the needs, interests and abilities of each student. Altman (1972, p. 5) points out that individualization alters the role of the teacher:

> The function of teaching is then the facilitation of the learning process for students, i.e. the effort on the teacher's part to allow learning to progress as smoothly as possible, minimally encumbered by shortcomings in the curriculum, in the student's learning environment, or in his aptitude for learning.

Lorraine Strasheim (1970) alleges that society is beginning to demand recognition of personal worth and that this demand provides the best rationale for individualization of instruction in French.

Disick (1975) outlines three main reasons for individualizing instruction in French. Firstly, individualizing instruction promotes student involvement, since each student must be responsible for organizing his own studies. Secondly, as students spend a large part of their time working alone or in small groups they are more willing to listen to the teacher when required, and therefore discipline problems resulting from inattention may be reduced. Thirdly, oral proficiency may be increased as students are less embarrassed

when answering questions in a small group. Oral proficiency may also be increased in I.L.P's by the use of language labs and/or tape recorders to supplement student/teacher dialogue.

Jakobovits (1970) advocates individualized learning on the grounds that previously uncontrolled learner factors, such as intelligence, aptitude and perseverance become subject to a certain amount of control. Jakobovits isolates learner factors and divides these into controlled and uncontrolled groups. In the traditional class the teacher controls the learning task, opportunity and quality of instruction. The learning task consists of one curriculum for all. Opportunity is limited to time in class (regular lesson periods) and quality of instruction is limited by the need to compromise--to teach to the "middle" of the class. The student's intelligence, aptitude and perseverance are largely out of the teacher's control.

In the individualized class the teacher gains some degree of control over previously uncontrolled factors, by considering these when establishing criterion goals and opportunity. The student gains some degree of control over previously teacher-controlled factors: instead of one set curriculum for all, the student is offered multi-curricula to suit his individual needs; opportunity may be variable, especially if there is flexible scheduling; the quality of instruction improves as the teacher is involved in continual evaluation of content and methods. In short, instead of being divided into controlled and uncontrolled groups, as in the traditional class, learner factors become interrelated and inter-dependent.

Jakobovits (1970, p. 73) stresses the need to recognize variable goals, interests, abilities and aptitudes in second language learning:

> What is needed is the recognition that different aptitudes permit the attainment of different goals both in range and degree within the time requirements and opportunities to learn provided by the foreign language program.

Politzer (1971) sees individualization as a reaction against the audiolingual curriculum, which tended to ignore individual differences. Individualization is in line with present trends in teaching which stress the role of the learner rather than of the teacher.

Politzer further asserts that individualization is favored by the "new style" of psychological research which studies treatment interaction rather than the differential results of different treatments. Politzer concludes that individualization of instruction, made possible by flexible scheduling and increased use of the computer, represents the best method for second language teaching in the face of falling enrolment in second language classes.

While accepting the need to accommodate individual differences, Logan (1973, p. 3) feels that individualization is favored largely because it represents a reaction against the notion of "accountability" in education:

> The pressure for individualization is coming now for humanistic reasons. It is mainly a reaction against an economically based trend of this century, i.e. the mass teaching technique developed for reasons of greater efficiency.

Three prerequisites for individualizing instruction in French are suggested by Altman (1972). Re-education of teachers and students is required. Secondly, increased responsibility is necessary on the part of the teacher and of the student. The teacher must assume increased responsibility to facilitate learning. The student must bear the primary responsibility for his own studies. Thirdly, individualization of instruction requires recognition of the fact that curriculum must be relevant. Altman (1972, p. 212) states:

> Relevance of curriculum means an awareness and acceptance of the impermanence of values in a society.

Problems and Disadvantages of Individualization of Instruction in French

Rebecca Valette (1974) questions the basic assumptions on which individualization is based. Valette places these assumptions in four main groups: assumptions about the nature of students, the nature of teachers, the nature of materials and the nature of facilities. I.L.P.'s are based on the assumption that all students are willing and eager to learn a second language and that they are willing to strive towards a future goal and that they all have the same learning styles. Valette contends that these assumptions are not applicable to all students, that it is also necessary to consider motivation and some system of reward to promote maximum effort on the part of the student.

Chastain (1975) also criticizes I.L.P.'s on the grounds that they fail to take into account the nature of students. He points out that students vary in intelligence, cognitive styles, learning style and set for learning, personality, social development, and values. He contends that the only variable which I.L.P.'s attempt to accommodate is the amount of time necessary to learn something. It is unrealistic to expect that all students can master any subject content, given sufficient time. He also alleges that, in practice, individualized learning often means isolated learning and that the group interaction, which is vital if the student is to be able to communicate effectively, is neglected.

Student considerations are also examined by Grittner (1975). He states that individualized instruction is not appropriate to all students and gives five reasons for making this claim: not all students want to be individualized; an I.L.P. in itself does not develop self-discipline or responsibility for organizing one's own studies; some students do not like working alone; students appear to need social interaction as well as independent study; dividing curricula into cognitive and affective areas may not be beneficial to students.

Nichols (1972, p. 56) also expresses concern about the lack of student interaction in I.L.P.'s. He states that not only does this lack limit the social development of the student, but also the absence of intellectual stimulation arising from classroom discussion and from the exchange of ideas and opinions may have a limiting effect on the student's intellectual growth:

> . . . lack of such interaction seriously diminishes the chances for cognitive growth.

The second group of assumptions isolated by Valette concerns the nature of teachers. Valette states that individualized instruction is based on the assumptions that teachers can prepare materials and that they can manage multiple activities efficiently. Obviously not all teachers are both willing and able to do this.

Logan (1970, p. 137) also expresses concern about the preparation of materials. He states that the inability of teachers to prepare materials which accommodate individual differences in learning styles and/or individual preferences for content severely limits the scope of individualization:

> A teacher does not have the time nor usually the skill to produce such materials. Therefore the only degree of individualization taking place to any great degree at the beginning levels of foreign language learning involves the rate of learning, or self-pacing.

As has already been mentioned, criticism has been levelled at commercially produced courses on the grounds that they recognize student differences only in respect of rate of achievement. Keuscher (1970, p. 15) states:

> Little has been done to vary content, sequence, objectives or paths to objectives. Even less consideration has been given to the self-concept of the learner, individual styles of learning, cultural influences on learning, or student responses to various styles of instruction.

Valette states that two main assumptions are made about materials: firstly that all I.L.P.'s are educationally sound and secondly that they can arouse the interest of students. Valette alleges that many I.L.P.'s are not educationally sound since they

concentrate on skill-getting rather than on skill-using. Valette also insists that it is difficult to administer oral work satisfactorily when using I.L.P.'s.

Nichols (1972, p. 57) expresses dissatisfaction with individualized courses presently offered because they prescribe a course of instruction in advance and do not take into account either the unexpected needs of the individual or useful learning situations which arise directly from teacher/student interaction:

> The master teacher must occupy the central role by remaining in constant command of the entire operation. The machine consoles, programmed materials, projector, teacher aides, etc., must be available to the master teacher at the precise moment they are needed--as the unexpected developments call for them. To ask teachers to order them two weeks in advance will not do.

The fourth set of assumptions isolated by Valette concerns the nature of facilities. The main assumption is that class space and media arrangements are ideal and that every one teacher with more than ten students will have an aide. This is the least important factor as drawbacks can be minimized.

Griffin (1974) objects to individualized instruction in French on practical grounds. Firstly, I.L.P.'s are suited only to schools which have supportive personnel and the physical plant which makes them possible. Valette has argued that the effects of these constraints can be minimized, but the fact remains that I.L.P.'s are costly. Secondly, Griffin foresees discipline problems with all students working on different things. There would be an inevitable noise level which many teachers would find intolerable.

Valette concludes that the real test of success will be if it can be proved that students perform better than they did in former second language programs. Chastain, on the other hand, concludes that most individualized learning programs fail to meet their objectives by failing to incorporate the "entire spectrum" of individualization. I.L.P.'s allow students to progress at their own pace, but do not offer choices in content, learning mode, or goals.

According to Gionet (1974) teacher enthusiasm for I.L.P.S, is a result of disenchantment with current teaching techniques and concern over falling enrolment in second language classes. Gionet lists three main disadvantages of I.L.P.'s: 14-15 year olds are not yet responsible enough to take entire responsibility for managing their own studies; record-keeping poses a problem, particularly when students transfer from one school to another; finally, and most importantly there is a loss of vital interaction among students.

Gionet concludes that a compromise between the traditional class and individualization of instruction would retain the best of individualization while eliminating some of the problems.

The Place of Modules in the Traditional Class

When I.L.P.'s are rejected, either for the reasons described above, or because they are too expensive, the problem of accommodating individual differences still remains.

Griffin (1974), having rejected I.L.P.'s on the grounds of impracticality, nevertheless feels that teachers should strive to

provide instruction which takes into account individual differences. He suggests that this can be achieved by the use of modules.

Parker (1973) suggests that choices in content can be offered by offering students a wide variety of interest-centered packages.

The rigidity of I.L.P.'s is examined by Stern (1975). It is difficult to adapt I.L.P.'s to suit such changes in overall programming as a lowering of the age of beginning French or changes in period length. Stern suggests that modules, such as those developed at O.I.S.E. on culture, are more adaptable to individual needs and more flexible than I.L.P.'s. Stern urges teachers to produce their own modules to fit their specific needs.

The use of modules rather than I.L.P.'s offers three main advantages. Russell (1974) points out that the use of modules gives the teacher the chance to develop, evaluate and use a wide variety of media to offer each student the means of learning which suit him best.

The module offers choices to the student which cannot otherwise be offered, either in the traditional class or in an I.L.P.: choices of content, choices of learning mode, choices of goals. Rosenthal (1973) argues that the frustration presently occurring in second language classes is less likely to occur when choices are provided to cater to student differences and interests. Rosenthal (1973, p. 195) advocates the use of modules as a complement to traditional courses:

> At the present time there is a need for comprehensive sets of foreign language L.A.P.'s that allow students to approach concepts from different levels of ability

> and interests as well as self-directing additional instructional materials complementary to the student's text book.

The third main advantage of the use of modules is that the degree of individualization can vary from total, with all students using different modules, to partial, with selected students working in groups on the same module or with selected individuals working on different modules.

There are at least five ways in which modules could be used in the traditional class.

1. Modules can be used to present the same materials in different forms and with different levels of required attainment, to accommodate the different abilities and terminal goals of students. Jakobovits (1972, p. 37) points out that it is unrealistic to expect all students to reach the same level of achievement. He suggests replacing the traditional objectives, which are the same for all students with objectives which differ according to the student's goals:

> Objectives ought to be stated within three major functional types: (a) ordinary commonplace functional conversational uses (b) monadic language use and (c) non-ordinary specialized language use.

2. Modules can also be used to help those who, for one reason or another, have fallen behind the rest of the class. For example, if a student has been away from school for two or three weeks, working on modules would permit him to catch up with the rest of the class.

Logan (1973) points out that class size and time constraints in schools prohibit teachers giving personal attention to such students

and states that the use of "tutorial" modules could profitably replace this personal attention. Logan (1970, p. 151) also stresses the greater flexibility offered by modules, as compared with I.L.P.'s:

> A text-book can't be written for each individual student, but small packets or modules of materials, arrangeable in many ways depending on the needs and interests of individual students, are possible.

3. Modules can also be used as a complement to the regular course for less advanced students. A module can present a grammatical unit, which has already been presented to the whole class, in a very simple form. The student proceeds in small steps and at his own pace, either during class time or as homework. Russell (1974) suggests that regular modules or those specifically designed for remedial work could be profitably used in such cases.

4. It is also possible to use modules as a supplement for more advanced students. While the more advanced students work on a module, which either permits in-depth study of a topic already covered in class or introduces a new topic, the teacher can work with the less advanced students. Teachers are already obliged to divide classes for such reasons. If the teacher has a stock of prepared modules which he can use, such divisions are made more easily.

5. Finally, modules can be used for the presentation of culture. For the teacher who says he has insufficient time in class to present culture the module represents a means of presenting culture without losing class time: students can work on the modules at home. The module also offers a means of covering a larger amount of

material. For example, one required module could be followed by a number of optional modules. All students work on the required module; then those who choose an optional module give an oral report to the rest of the class.

The use of modules could also provide a means of providing links between different subjects. For example, if students are studying the Eskimos in Social Studies a module containing excerpts from the novels of Yves Thériault could be used in the French class. If the students are studying radium in Science, a module on the life of Marie Curie could be used in the French Class.

The Construction of Modules

Talbert (1968, p. 20) describes the development of the use of modules as an approach to individualization at the Nova School in Fort Lauderdale, Florida. These modules were intended to be used in sequence as part of an I.L.P.

The underlying concepts of modules are outlined by Jones (1968) and Talbert (1968). Talbert states (p. 21) that modules are based on the belief that students will learn better if three basic conditions are met:

> Students will learn better if they are (1) told what it is they are required to do as a result of the learning experience, (2) given a set of learning experiences which will help them learn to do that which they are able to do and (3) are then asked to demonstrate what they are able to do.

Jones stresses the importance of using the module to bring the learner toward an understanding of one major concept.

The variables which may be accommodated by a module are outlined by Mueller (1971) and in the Recommendations of the Committee for Curricular Development for Individualizing Foreign Language Instruction at the Stanford Conference, 1971. These variables are rate of learning, modes of learning, and content of learning.

Rate of learning can be varied by step-increment and self-correcing test items.

Modes of learning differ among students with regard to auditory or visual preference, choice of strategies for grammar acquisition, habit formation and inference making.

Preferences for auditory or visual learning can be answered by using a combination of tape, text and pictures. Preferences for methods of grammar acquisition and habit formation can be accommodated by using comparisons with English structures, exercises to reinforce cognitive knowledge and comprehension exercises. Provision for individual differences in inference making can be offered by providing listening and reading exercises, skeleton sentences, audio-visual support and vocabulary inferencing exercises.

In recognition of preferences for content modules may be used to supplement the regular courses. Further choice in content is provided by using different lexical content to teach the same grammatical content.

The format for a module may vary, but there will usually be six basic components (Magidson, 1976, Ringis, 1971, Hansen and Hearn, 1971, Cardarelli, 1972), as follows: pretest, behavioral/learning objectives, learning activities, self-evaluation, posttest and

in-depth activities. The in-depth activities are omitted where they are inappropriate.

The main purpose of the present study is to use two similar modules, one for Grade 8 and one for Grade 9, constructed in accordance with the guidelines set out by Magidson et al., in order to investigate Russell's claim that modules can be profitably used for remedial teaching and learning in French.

The third chapter will present a description of the sample, the experimental treatment, the modules, the tests, and the pilot study.

CHAPITER III

DESCRIPTION OF THE SAMPLE, THE EXPERIMENTAL TREATMENT, THE MODULES, THE TESTS, AND THE PILOT STUDY

The Sample

Three classes of Grade 8 and three classes of Grade 9 students participated in the study. One Grade 8 class and one Grade 9 class were selected at random from three junior high schools. A total of 115 students participated in the study.

Junior high schools were chosen for the study, in preference to senior high schools, as although no modules have been developed for use at the senior or junior high school levels, minicourses are available at the senior high school level.

Each student's age, sex, and term mark in French were recorded. The average age of students in Grade 8 was 13 years 8 months. The total number of students in Grade 8 was 67; 35 boys and 32 girls. The term marks ranged from 15% to 85%.

The average age of students in Grade 9 was 14 years 8 months. The total number of students in Grade 9 was 48: 19 boys and 29 girls. The term marks ranged from 30% to 90%.

No attempt was made to assess the socio-economic background of the students. Since the three junior high schools were chosen at random they may be presumed to be a representative sample of junior high schools in Edmonton.

The Experimental Treatment

Permission for the study to be carried out was granted by the Edmonton Public School Board. A French teacher in each of three junior high schools agreed to participate in the study. A Grade 8 class and a Grade 9 class were selected at random from each school. Students were given no special instructions, either about the experimental treatment, or about the objectives, in order to minimize the Hawthorne effect.

Each of the treatment groups worked on a module for two forty-minute periods. Students were instructed to work individually and at their own pace. After working on the module and before the posttest students were asked to answer in writing the following question: "Do you think you have learned anything from working on the module?," to enable the investigator to find out if they felt they had learned the concepts as a result of working on the module. They were also asked to add any other comments which they wished to make. To ensure that students would feel free to write whatever comments they wished, they were not required to write their names on the answer sheets.

The experiment was carried out during a three-week period from February 27th to March 17th, 1978, not including the pretests and posttests. The regular classroom teacher supervised the administration of the pre- and posttests. The students in the treatment groups

were supervised by the investigator. The classroom teacher informed the students that the investigator was present in a supervisory capacity and would not teach, or answer questions.

The Modules

The objectives for the Grade 8 module are these: (1) for students to be able to recognize the possessive adjectives son, sa, ses, leur, and leurs; (2) for students to be able to use these possessive adjectives correctly when writing answers to questions in French; (3) for students to be able to recognize the possessive adjectives mon, ma, mes; ton, ta, tes; notre, nos; votre, vos.

The objectives for the Grade 9 module are these: (1) for students to be able to recognize the direct object pronouns le, la, l', and les; (2) for students to be able to use these pronouns correctly when writing answers to questions in French.

The basic format for the modules follows the pattern suggested by Valette and Disick (1972), Magidson (1976), Ringis (1971), Hansen and Hearn (1971), and Carderelli (1972): (pretest), behavioral objectives, learning activities, self-correcting exercises, (posttest).

The first page of the student's book states the objectives of the module in behavioral terms. Hansen and Hearn (1971, pp. 112-3) stress the importance of stating objectives in behavioral terms:

> Behavioral objectives let the student know what is expected of him when he has successfully completed the learning experience. They also serve as guidelines for the L.A.P. writer.

Valette and Disick (1973, p. 12) state that students learn better when they know exactly what is expected of them.

Also included on the first page of the student's book is a description of the learning activities, and instructions detailing how they should be carried out.

In addition to the student's book the module also comprises a tape and a picture sheet. The tape contains a text, which includes examples of the grammatical constructions, and model questions and answers. Each section of the tape is illustrated on the accompanying picture sheet. The written text of the tape is on page 2 of the student's book. Students are free to choose to use the tape alone, tape and pictures, text and pictures, or tape and text and pictures for the first section.

The model questions and answers on the tape are included to accommodate those students who prefer to learn grammatical constructions inductively.

The remainder of the student's book presents the grammar in single-step units, each followed by self-correcting exercises. The grammar sections are included to accommodate those students who prefer to learn grammar deductively. Each grammar section contains five main types of presentation and/or explanation: pictures with captions in French; diagrammatic presentation in French; explanation in French; explanation in English; comparison between French and English constructions.

The wide variety of grammatical presentation and explanation is included to accommodate individual differences in learning style

among students. The importance of this variety of grammatical explanation is stressed by many writers. Hansen and Hearn (1971, p. 115), Logan (1970, p. 137), Mueller (1971, p. 149), Rosenthal (1973, p. 197), the Committee on Curricular Development in Foreign Language Instruction at the Stanford Conference (1971, pp. 151-61) all stress the importance of a variety of grammatical explanations and a multi-model approach. Jakobovits (1970, p. 100) points out the need to adjust instructional activities to the student's aptitude.

There are three main reasons for including self-correcting exercises after each unit of grammar. Firstly, the exercises provide the opportunity for the student to test out his inferences. Secondly, if the student makes mistakes in the first exercise, he can study the grammar section again and then repeat the exercise before moving on to the next exercise. Thus he does not continue to repeat mistakes until they become "learned." Neither does he build on a shaky foundation. Thirdly, completing an exercise correctly increases the student's self-confidence.

A combination of tape, student's book and picture sheet is used in the modules to accommodate individual auditory/visual learning preferences. Logan (1973, p. 48) points out that some students learn better aurally and some learn better visually. Mueller (1971, p. 149) states that while some students learn best by listening, others prefer to learn by reading, and others need to write in order to process information, and adds that provision must be made for each approach. The Committee on Curricular Development for Instruction in Foreign Language Learning at the Stanford

Conference (1971, pp. 151-61) also stress the need to present materials in both auditory and graphic forms.

Pictures were chosen, in preference to slides or a film strip, and a cassette tape was used, in preference to a large tape, for two reasons. Firstly, so that students would be able to use the module themselves, without help from a teacher. Secondly, using a picture sheet and a cassette tape makes the module readily portable, so that it would be possible for students to work on the module at home.

Grammatical content for the modules was chosen in consultation with a teacher in the Edmonton School System. Two units of grammar were selected which commonly cause problems for students: possessive adjectives for the Grade 8 module and direct object pronouns for the Grade 9 module.

Several new words were included in each module. The inclusion of new words is consistent with recent theories of second language acquisition. Jakobovits (1970, p. 25) states:

> The new psycholinguistic theory of language acquisition emphasises the developmental aspect of language acquisition and attributes to the child specific innate competencies which guide his discovery of the language to which he is exposed.

The implication for teachers of second languages is that the learner should be exposed to the full range of linguistic data, in order to allow him to test out his inferences.

A second reason for the inclusion of new words was that this allowed the module to accommodate variety of content, by using situations not covered in the student's text book.

No new words were used in the pre- and posttests.

The topic chosen for the text was "Les Vacances." The story concerns a family, on a camping trip. It was hoped that students would find this topic interesting, and that this would increase their motivation.

A checklist was used in the construction of the modules: J.W. Keefe, "Learning packages: an evaluative checklist for learning prescription," Monograph No. 16, University of Calgary, Division of Continuing Education, 1967.

The modules and tests were also evaluated by a professor in the Department of Secondary Education at the University of Alberta, and by a teacher in the Public School System.

The Tests

The pre- and posttests were designed to measure student acquisition of the grammatical concepts in written production in French. As the investigator wanted to find out whether modules could be used to help students reach the required standard it was necessary to ascertain the required standard and the means used by the classroom teacher to measure student attainment of that standard. The investigator therefore consulted with a teacher in the Edmonton Public School System, to ensure that the tests would be of a similar design to those used in class.

To ensure that students would not be hampered by unknown words, no new words were used in the pre- and posttests.

The investigator also consulted "Modern language testing: A handbook" by Rebecca Valette (1967).

The same format was used for the pre- and posttests. Different questions were used in each test. It was decided not to use the same test for pre- and posttests for three reasons. Firstly, students are not usually asked to repeat the same test in class, and the investigator wanted to avoid creating a situation which differed from usual classroom practice. Secondly, repeating the same test would not allow students to demonstrate the ability to transfer, by using an acquired concept in a different situation. Thirdly, students might be expected to score higher on the second test simply because the first had acted as a learning experience. Alternatively students might repeat mistakes from the first test, simply because they remembered their previous answers. It is also possible that students might resent being asked to repeat a test, and hence might not work to the best of their ability.

After the study had been completed, the results of the pre- and posttests of the control group students in Grades 8 and 9 were analyzed in order to find a reliability coefficient for the tests.

The item pairs for the pre- and posttests were compared so as to verify the parallelism between the questions on the two different tests. (See tables 1 and 2.) Chi square tests were significant for 20 out of 30 item pairs on the Grade 8 pre- and posttests and for 10 out of 15 item pairs on the Grade 9 pre- and posttests, which represents a reliability coefficient of 0.67. This was confirmed by the correlation of scores on items. In Grade 8, 18 out of 30 are significant, and in Grade 9 14 out of 15 are significant.

Table 1

Summary of the X^2 Tests of Item Pairs on the Pre- and Posttests for the Grade 8 Control Group

Item Pairs	% passing 1st item	% passing 2nd item	X^2	signif-icance	Correl-ation of scores on items	signif-icance
1,31	66	72	0.58	0.44	0.56	0.001
2,32	63	72	0.27	0.60	0.16	0.38
3,33	75	81	2,31	0.11	0.05	0.77
4,34	48	69	3,86	0.05	0.19	0.29
5,35	90	99	1.45	0.22	0.13	0.44
6,36	84	96	4.81	0.03	0.38	0.03
7,37	57	51	7.64	0.01	0.21	0.11
8,38	63	51	4.48	0.03	0.42	0.02
9,39	45	42	2.66	0.10	0.30	0.09
10,40	45	39	0.03	0.87	0.02	0.91
11,41	60	57	9.21	< 0.001	0.17	0.35
12,42	39	54	10.66	< 0.001	0.58	< 0.001
13,43	63	72	4.30	0.05	0.47	< 0.001
14,44	60	72	3.32	0.07	0.37	0.03
15,45	75	78	1.60	0.21	- 0.20	0.26
16,46	69	78	0.01	0.94	0.21	0.23
17,47	90	81	8.26	0.01	0.20	0.25
18,48	84	81	4.22	0.04	0.46	<0.001
19,49	48	60	2.13	0.14	0.60	0.74
20,50	27	45	3.92	0.05	0.50	0.001
21,51	24	45	0.00	0.98	0.35	0.05
22,52	27	45	1.43	0.23	0.27	0.12
23,53	27	91	0.60	0.43	0.14	0.43
24,54	18	48	3.51	0.06	0.36	0.03
25,55	24	39	0.13	0.71	0.03	0.85
26,56	24	39	0.13	0.71	0.13	0.45
27,57	57	51	9.83	<0.001	0.17	0.35
28,58	45	42	5.44	0.02	0.53	0.001
29,59	57	72	5.44	0.02	0.38	0.03
30,60	48	63	6.54	0.01	0.48	0.01

Table 2

Summary of the X^2 Tests of Item Pairs on the Pre- and Posttests for the Grade 9 Control Group

Item Pairs	passing 1st item	passing 2nd item	X^2	signif-icance	Correl-ation of scores on items	signif-icance
1,16	88	72	0.0	1.00	0.15	0.48
2,17	92	60	0.07	0.79	0.36	0.08
3,18	68	76	5.10	0.02	0.50	0.01
4,19	68	60	7.11	0.01	0.12	0.57
5,20	68	76	1.33	0.25	0.26	0.22
6,21	72	72	4.74	0.03	0.18	0.41
7,22	52	36	9.41	0.001	0.24	0.26
8,23	56	56	3.84	0.05	0.31	0.15
9,24	64	32	1.15	0.28	0.30	0.15
10,25	84	80	0.0	1.0	0.27	0.21
11,26	84	72	0.13	0.72	0.17	0.43
12,27	64	68	1.24	0.27	0.20	0.34
13,28	56	60	0.41	0.52	0.20	0.35
14,29	20	56	0.35	0.55	0.18	0.39
15,30	24	20	0.08	0.77	0.10	0.65

The reliability coefficient of 0.67 may be considered acceptable since the tests are measuring mastery levels. Popham and Husek (1969) point out that low reliability estimates are to be expected in criterion-referenced tests and that therefore test developers should not be over-concerned by low classical reliability estimates. Hambleton et al. (1978) support this conclusion and suggest that content validity should be estimated by content specialists. Eliminating items on the basis of low reliability could, in a mastery situation, introduce a bias into the test. This is confirmed for the present study by examination of the X^2 tests. For example paired items 3 and 18, and 7 and 22, on the Grade 9 pre- and posttests could have been rejected on the basis of low classical reliability. However elimination of these items would have introduced a bias into the test. These two items were included to test the student's ability to replace le or la by l' before a verb beginning with a vowel. The fact that this was probably the most difficult concept the students were required to master may explain why low reliabilities were obtained for these items. If these items had been eliminated an important concept would not have been tested.

In view of the fact that low classical reliability estimates may be expected in criterion-referenced tests, which measure students' knowledge against the task not against a norm, the reliability coefficient of 0.67 is considered acceptable for the present study. Furthermore, the validity of the test items was judged satisfactory by content specialists, which should validate the task.

The pre- and posttest scores of the Grade 8 and Grade 9 control groups were analyzed using one-way repeated measures design. (See tables 3 [illegible]). The difference between the pre- and posttest mean scores for the Grade 8 control group was found to be significant. Since the mean gain was numerically small it can probably be attributed to a learning effect from the pretest, and probably serves to increment the experimental learning effects due to the treatment. As is shown below, however, where control and experimental scores are compared, eighth-grade gains for the experimentals were numerically much larger, despite the significant pre-post gains by the eighth-grade controls. As is evident from table 4, the same problem did not arise at ninth-grade level, where, as expected, there was no significant difference between pretest and posttest scores for the control group.

Table 3

Summary of Analysis of Variance of the Pre- and Posttest Scores for the Grade 8 Control Group

Source of variation	SS	DF	MS	F
Between people	2419.13	33	73.30	
Within people	415.50	34	12.20	
Tests (pre-post)	101.30	1	101.30	10.64**
Residual	314.19	35	9.52	
Total	2834.63	67		

** $p < 0.001$

Table 4

Summary of Analysis of Variance of the Pre- and Posttest Scores for the Grade 9 Control Group

Source of variation	SS	DF	MS	F
Between people	469.67	23	20.42	
Within people	137.00	24	5.71	
Tests (pre-post)	5.33	1	5.33	0.93*
Residual	131.67	23	5.72	
Total	606.67	47		

*n.s.

The Pilot Study

A pilot study was conducted at an Edmonton junior high school in December 1977.

The major objectives of this pilot study were firstly to ascertain whether a module which caters to individual learning styles, by using a tape, text, pictures, variety of grammatical explanations and practice exercises, could be effectively used to help students who have failed to reach the required level of competence in written production after the regular class presentation of a unit of grammar; secondly to obtain students' reactions to the module and to the use of the module; thirdly to evaluate the pre- and posttests; fourthly to ascertain the feasibility of an extended study.

Description of the Sample

A Grade 9 class was chosen at random from the junior high school. There were 25 students in the class. Ten students, who achieved high scores on the pretest, were eliminated from the study. The remaining students were divided at random into two groups, matched on the basis of their scores on the pretest. There were 8 students in the experimental group and 7 students in the control group.

Summary of Research Procedure

A pretest was given to the whole class. The test was scored out of 15. All students scoring 14 or 15 were eliminated from the study, as they had obviously already mastered the content presented in the module. The scores of the remaining students were compared to obtain two matched groups, an experimental and a control group. Assignment to the experimental or control group was random. The experimental group spent two forty-minute periods working on the module. They were instructed to work individually and to proceed at their own pace. Before the posttest, the experimental group was asked to complete a short questionnaire to enable the researcher to obtain a critical appraisal of the module and students' reactions to working on the module. All the students were given a posttest. Students were not told their marks on the pretest or the posttest until after the conclusion of the study.

Results of the Pilot Study

1. All the students in the experimental group scored higher on the posttest than their counterparts in the control group. (See table 5.) Gains in the experimental group ranged from 1 to 10. In the control group only two students scored higher on the posttest than on the pretest (by 1 point). Four had the same score and one student had a lower score.

2. Students' reactions to the questionnaire were favorable. All students found the instructions, content and exercises clear and easy to understand. They all stated that they found working on the module more interesting than their regular class. Several students added additional comments. Two of them suggested that similar modules would be useful for students who "had difficulties with French." The only criticism of the module, made by three students, was the use of the bell on the tape. Accordingly the bell was replaced by a less strident one for the proper study.

Students were also asked to list new words in the module, and to give their equivalent in English. All students did this correctly. They were also asked if the new words constituted a problem. Seven students stated that the new words were not a problem, and one student said "a slight problem."

They were also asked whether on a similar module they would prefer tape alone, or tape and pictures, or text and pictures, or tape and text and pictures. All eight students expressed a preference for tape and text and pictures.

Table 5

Comparison of the Scores Obtained on the Pretest and Posttest by the Experimental and Control Groups

	Pretest	Posttest	Gain/Loss
Experimental Group			
X.1	13	15	+ 2
X.2	13	14	+ 1
X.3	12	14	+ 2
X.4	11	12	+ 1
X.5	11	14	+ 3
X.6	9	12	+ 3
X.7	7	12	+ 5
X.8	1	11	+ 10
Control Group			
C.1	13	13	=
C.2	13	13	=
C.3	11	11	=
C.4	10	11	+ 1
C.5	9	10	+ 1
C.6	8	8	=
C.7	5	4	- 1

In view of the results obtained on the pilot study the format of the module was retained unchanged, except for the replacement of the bell on the tape.

The pre- and posttests were revised. One question which most students answered incorrectly was replaced. In the main study it was decided to mark the tests out of thirty, instead of out of the original fifteen, in order to obtain a wider distribution of marks.

The questionnaire was not included in the main study, as it was designed mainly to gain students' reactions to the module, in order to make any necessary modifications. Also, it would have involved asking teachers to release students for extra time. The questionnaire was therefore replaced by the short question: "Do you think you have learned anything from working on the module?"

In the fourth chapter the analysis of the data and the interpretation of the results are presented.

CHAPTER IV

RESULTS AND DISCUSSION

Statistical Results

The computations involved in the analysis of data were performed on the University of Alberta computer, using computer programs from the Division of Educational Research Services. A probability value of 0.05 was used to determine the acceptance or rejection of the null hypotheses presented earlier in this study.

In this chapter the analysis of variance of the scores of the experimental and control groups on the pre- and posttests will be presented first. This will be followed by the analysis of variance of the scores of the high, medium, and low achievement experimental groups on the pre- and posttests. Finally, students' responses to the question and their comments will be presented. In each section the results for Grade 8 are presented first, followed by the results for Grade 9.

The first analysis of variance was addressed to the null hypothesis:

> There is no significant difference between the experimental and control groups on the posttest scores controlled for differences in the pretest scores.

The Grade 8 experimental group comprised 33 students and the control group 34 students. (See table 6.)

Table 6

Composition of Grade 8 Groups

	Pretest	Posttest
Experimental	33	33
Control	34	34

The analysis of variance for the Grade 8 experimental and control groups on the pre- and posttest is summarised in table 7. No significant difference was found between the experimental and control groups as measured by scores on the pretest. This was expected, since students were matched on the basis of pretest scores and then assigned at random to either the experimental or control group.

The experimental treatment, as measured by the pre- and posttests, was found to be significant. The F value was 74.58 which has a probability of < 0.001. Examination of the mean scores on the pre- and posttests for the experimental and control groups shows that the mean gain for the experimental group was higher than the mean gain for the control group. (See table 8.) The mean scores for the experimental group on the pre- and posttests are 14.03 and 23.36, respectively. This represents a mean gain of 9.83. The mean scores of the control group on the pre- and posttests are 15.76 and 18.15. This represents a mean gain of 2.39. The mean gain of the control group probably results from a learning effect from the pretest. The mean gain for the experimental group represents a gain of approximately

Table 7

Summary of Analysis of Variance for the Grade 8 Experimental and Control Groups on the Pre- and Posttest

Source of variation	SS	DF	MS	F
Between groups	4588.84	66		
'A' main effects (experimental vs. control on the pretest)	101.53	1	101.53	1.47
Subjects within groups	4487.13	65	69.04	
Within groups	2535.50	67		
'B' main effects (experimental vs. control on the posttest)	1149.29	1	1149.29	74.58**
'A' and 'B' interaction	404.56	1	404.56	26.25**
'B' x subjects within groups	1001.68	65	15.41	

** $p < 0.001$

Table 8

Mean Scores of the Grade 8 Experimental and Control Groups on the Pre- and Posttests

	Pretest	Posttest
Experimental group	14.03	23.36
Control group	15.76	18.15

32%, since the tests were marked out of 30. The possible mean gain for the experimental group was 15.97, or just over 50%. The mean gain for the control group was 2.39, or approximately 10% and the possible mean gain was 14.24, or just under 50%.

The interaction between experimental versus control condition and testing condition was also significant. The F value was 26.25, which has a probability of < 0.001. The nature of this interaction has already been illustrated by examination of the mean scores on the pre- and posttests. The mean scores for the experimental group are higher than the mean scores for the control group on both the pre- and posttests. However the gain from pre- to posttest is much greater for the experimental group. Since the control group received no treatment it is possible to conclude that the higher posttest scores for the experimental group resulted from the treatment.

The results for the Grade 9 students are comparable with the results for the Grade 8 students.

The Grade 9 experimental and control groups each comprised 24 students. (See table 9.)

Table 9

Composition of Grade 9 Groups

	Pretest	Posttest
Experimental group	24	24
Control group	24	24

No significant difference was found between the experimental and control groups. As in Grade 8, this was expected since subjects were matched on the basis of pretest scores and then assigned at random to either the experimental or control group.

The experimental treatment, as measured by the pre- and post-tests, was found to be significant. The F value was 7.24, which has a probability of < 0.001. (See table 10.)

Table 10

Summary of Analysis of Variance for the Grade 9 Experimental and Control groups on the Pre- and Posttests

Source of variation	SS	DF	MS	F
Between groups	3362.50	47		
'A' main effects (experimental vs. control on the pretest)	170.62	1	170.62	2.46
Subjects within groups	3191.84	46	69.38	
Within groups	1384.00	48		
'B' main effects (experimental vs. control on the posttest)	140.17	1	140.17	7.24**
'A' and 'B' interaction	352.66	1	352.66	18.20**
'B' x subjects within groups	891.17	46	19.37	

** $p < 0.001$

Examination of the mean scores on the pre- and posttests of the experimental and control groups shows that there was a mean gain for the experimental group and a mean loss for the control group. (See table 11.) The mean scores of the experimental group on the pre- and posttests are 18.83 and 25.08 respectively. This represents a mean gain of 6.25. The mean scores of the control group on the pre- and posttests are 20.00 and 18.58. This represents a mean loss of 1.42. For Grade 9 there was therefore no apparent learning effect from the pretest. A loss of 1.24 out of a possible score of 30 may be explained by the fact that students had not totally mastered the grammatical concepts and thus might be expected to apply faulty reasoning or to guess the answers. It is possible that guessing, by chance, produced slightly more correct answers on the pretest than on the posttest.

The mean gain for the experimental group in Grade 9 (6.25) is lower than the mean gain for the experimental group in Grade 8 (9.83). This is attributable in part to the fact that mean scores in Grade

Table 11

Mean Scores of the Grade 9 Experimental and Control Groups on the Pre- and Posttests

	Pretest	Posttest
Experimental group	18.83	25.08
Control group	20.00	19.58

9 on the pretest were higher than mean scores on Grade 8 on the pre-test. Therefore the possible mean gain for Grade 9 was lower than the possible mean gain for Grade 8. In fact the mean score for the Grade 9 experimental group on the posttest (25.08) is higher than the mean score for the Grade 8 experimental group on the posttest (23.36), indicating a slightly higher level of mastery by the Grade 9 experimental group.

The initial difference in pre-test scores between the two grades can be explained by the different levels of mastery of the grammatical content prior to the pretest. In other words the Grade 9 students had a higher level of mastery of preceding direct object pronouns than the Grade 8 students had of possessive adjectives, prior to the pretest. This conclusion is confirmed by the fact that a higher number of students in Grade 9 than in Grade 8 were eliminated from the study after the pretest, as they scored 27/30 or above, indicating that they had already reached mastery level.

The interaction between experimental condition and testing condition was also significant at the Grade 9 level. The F value was 18.20 which has a probability of < 0.001. The nature of this interaction has already been illustrated by examination of the mean scores on the pre- and posttests. The mean score of the experimental group on the pretest is lower than the mean score of the control group, but on the posttest the mean score of the experimental group is much higher than the mean score of the control group. The control group in fact had a mean loss from pre- to posttest. Since the control group received no treatment it is possible to conclude that the higher scores of the experimental group resulted from the treatment.

In view of the results obtained it is possible to reject the null hypothesis:

> There is no significant difference between the experimental and control group on the posttest scores controlled for differences on the pretest scores.

The second analysis of variance was addressed to the null hypothesis:

> There is no significant difference in pretest/posttest gains among groups of students categorized as having high, medium, or low achievement in French, as measured by term marks.

Term marks for all students involved in the study were obtained from the class teachers. On the basis of these marks the students in each class were divided into three equal groups, categorized as high, medium, and low, to indicate in broad terms each student's achievement in French, compared with the rest of his class. The data thus obtained for the experimental group in each grade were analyzed with the pretest/posttest gain as covariate, in order to find out if each group benefited equally from the treatment, or whether the treatment was more appropriate for one particular group.

The Grade 8 experimental group contained 12 students in the high achievement category, 9 students in the medium achievement category, and 12 students in the low achievement category. (See table 12.)

The analysis of variance is summarised in table 13. The difference between the high, medium, and low groups, as measured by the pretest was found to be significant. The F value was 11.045 which has a probability of < 0.001. This indicates that the difference

Table 12

Grade 8 Experimental Group: Composition of High, Medium, and Low Achievement Groups

	Pretest	Posttest
High	12	12
Medium	9	9
Low	12	12

Table 13

Summary of Analysis of Variance for the Grade 8 Experimental High, Medium, and Low Groups on the Pre- and Posttests

Source of variation	SS	DF	MS	F
Between groups	2069.94	32		
'A' main effects (high/medium/low)	842.79	2	421.40	11.05**
Subjects within groups	1144.57	30	38.15	
Within groups	2126.00	33		
'B' main effects (treatment)	1447.81	1	1447.81	64.32**
'A' and 'B' interaction	14.70	2	7.35	0.33
'B' x subjects within groups	675.28	30	22.51	

** $p < 0.001$

among students, as measured by term marks, was reflected in the pretest scores. This conclusion is confirmed by the pretest mean scores. The mean score for the high group was 19.00, for the medium group 11.89, and for the low group 10.67. (See table 14.)

Table 14

Mean Scores of Grade 8 High, Medium, and Low Groups on the Pre- and Posttests

	Pretest	Posttest
High	19.00	28.00
Medium	11.89	22.67
Low	10.67	19.25

The effect of the treatment within groups as measured by the pre- and posttests was also found to be significant. The F value was 64.32, which has a probability of < 0.001. Students in each group made significant gains on the posttest. For the high group the mean gain was 9, for the medium group 10.78, and for the low group 8.58.

No significant difference in gains was found between groups. The extent of the posttest gain was not correlated with group membership. Although statistically these gains are not significantly different, it is interesting to note that the greatest mean gain was made by the medium group (10.78) whereas the low group, which had the

lowest pretest mean score and therefore the greatest potential gain (19.02) had the smallest mean gain (8.58). (See figure 1.)

Comparison of the mean pre- and posttest scores of the high, medium and low groups reveals that in School 1 the highest mean gain was made by the medium group (see figure 2); in School 2 the highest mean gain was made by the low group (see figure 3) and in School 3 the medium and low groups each had a mean gain of 10, and the high group had a mean gain of 7. (See figure 4.)

The variation in gains is wider when schools are considered separately as the number of subjects in each group decreases and one very high or one very low gain considerably influences the group mean score.

Some of the pretest and posttest scores of individual students in the low and medium achievement groups revealed extensive gains. For example in School 1, one student in the low group had pre- and posttest scores of 2 and 27, a gain of 25; in School 2, one student in the low group had pre- and posttest scores of 4 and 26, a gain of 22; in School 3 one student in the medium group had pre- and posttest scores of 10 and 24, a gain of 14, and another student in the low group had pre- and posttest scores of 3 and 30, a gain of 27.

These individual scores suggest that while no correlation exists between high, medium, and low groups and pretest/posttest gains, some individual students scored considerably higher than might have been expected from an assessment of their achievement in French. It is possible that examination of the preferred learning styles and other characteristics of such students might lead to the

Figure 1

Mean Pretest/Posttest Gains of Grade 8 Experimental

High, Medium, and Low Groups

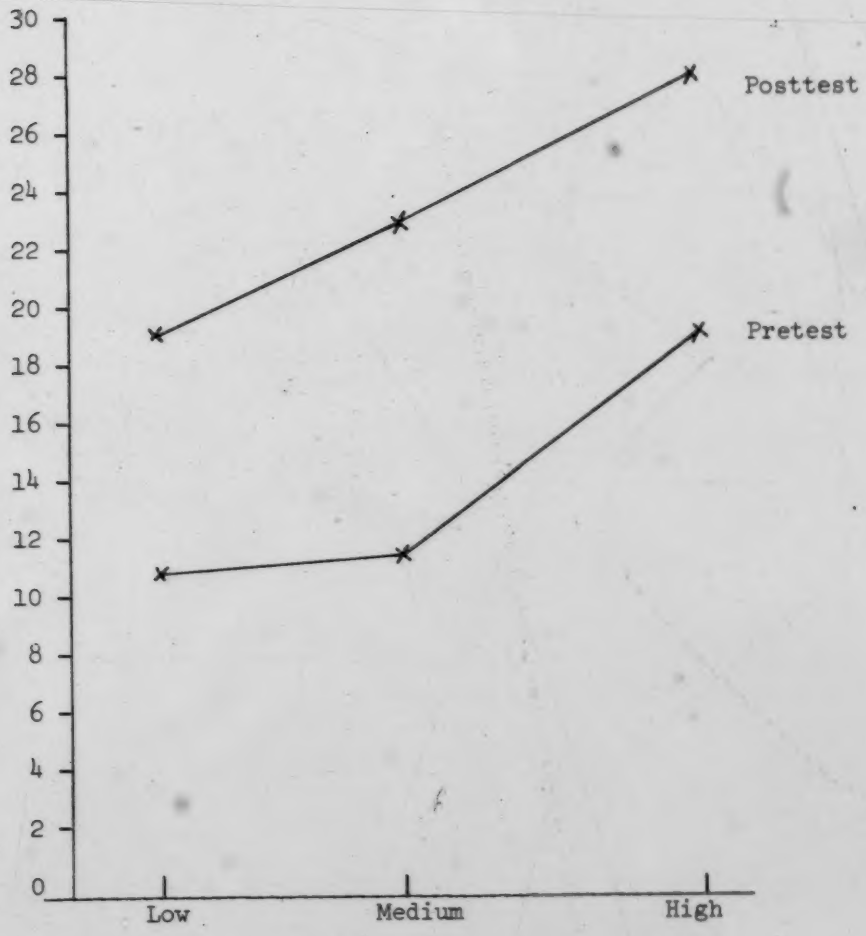


Figure 2

Grade 8 School 1: Mean Pretest/Posttest Gains of Experimental High, Medium, and Low Groups

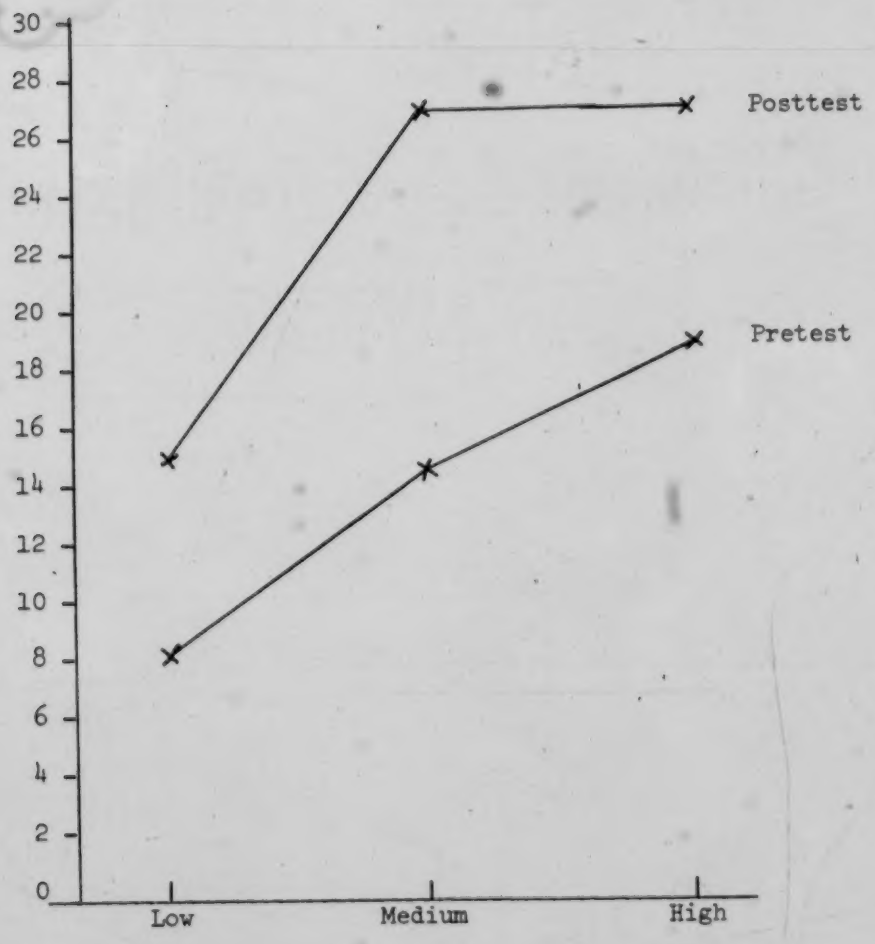


Figure 3

Grade 8 School 2: Mean Pretest/Posttest Gains of Experimental High, Medium, and Low Groups

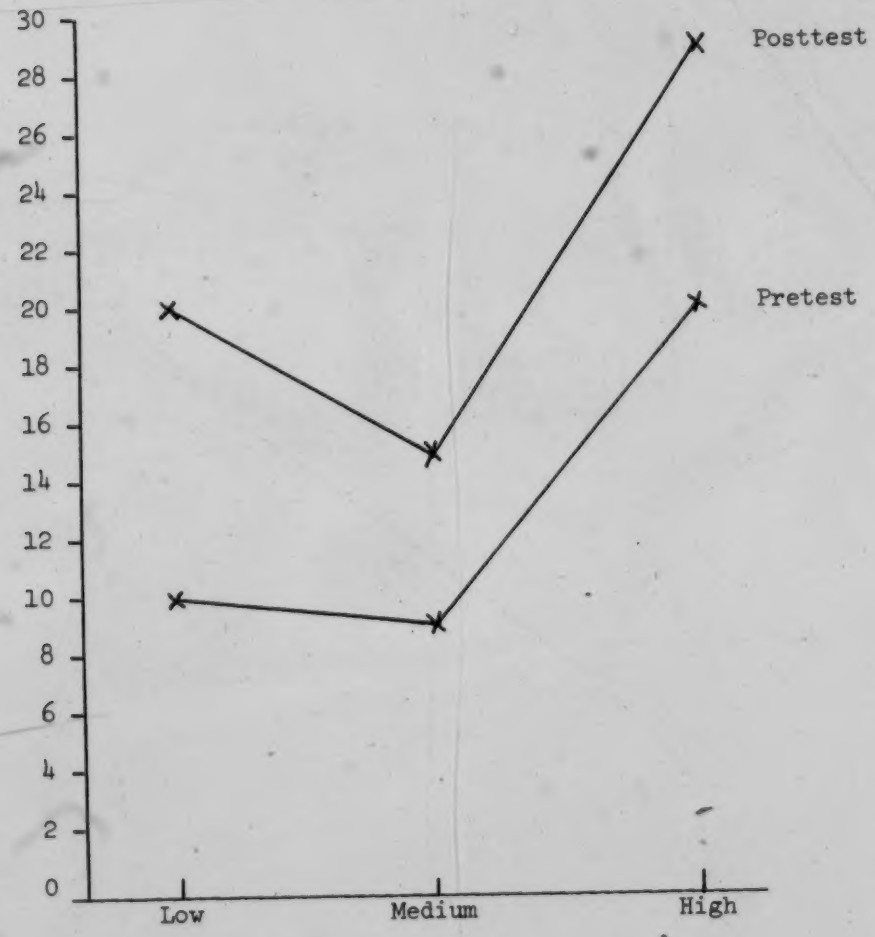
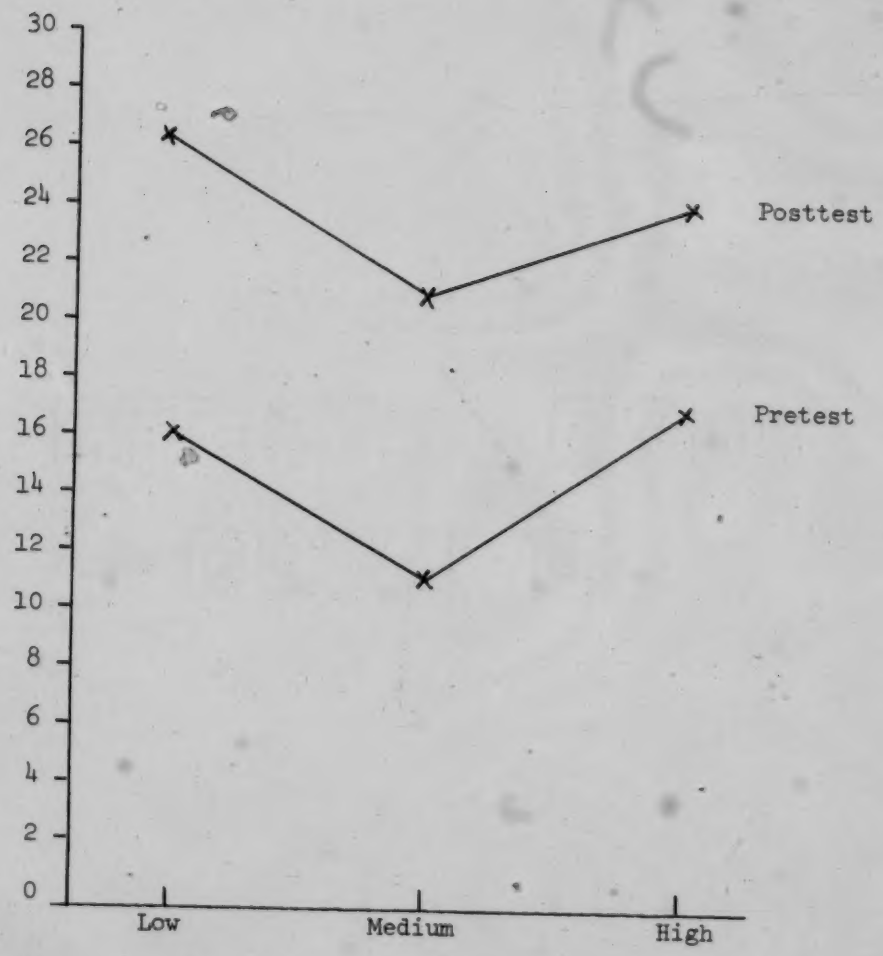


Figure 4

Grade 8 School 3: Mean Pretest/Posttest Gains of Experimental High, Medium, and Low Groups



identification of common characteristics which could be used to predict which students might be expected to benefit significantly from the use of modules.

The Grade 9 results are comparable with the results for Grade 8.

The Grade 9 experimental group comprised 6 students in the high achievement category, 11 students in the medium achievement category, and 7 students in the low achievement category. (See table 15.)

Table 15

Grade 9 Experimental Group: Composition of the High, Medium, and Low Achievement Groups

	Pretest	Posttest
High	6	6
Medium	11	11
Low	7	7

The difference between the high, medium, and low groups, as measured by the pretest, was found to be significant. The F value was 9.384, which has a probability of 0.001. (See table 16.) As in Grade 8, the difference among students, as measured by term marks, was reflected in the pretest scores. This conclusion is supported by the pretest mean scores. The mean score for the low group was 13.14, for the medium group 20.00, and for the high group 23.33. (See table 17.)

Table 16

Summary of Analysis of Variance for the Grade 9 Experimental High, Medium, and Low Groups

Source of variation	SS	DF	MS	F
Between groups	1309.92	23		
'A' main effects (high/medium/low)	627.49	2	313.75	9.38*
Subjects within groups	702.10	21	33.43	
Within groups	822.00	24		
'B' main effects (treatment)	371.03	1	371.03	26.19**
'A' and 'B' interaction	57.13	2	28.56	2.02
'B' x subjects within groups	297.53	21	14.17	

* $p = 0.001$

** $p < 0.001$

Table 17

Mean Score of Grade 9 High, Medium and Low Groups on the Pre- and Posttests

	Pretest	Posttest
High	23.33	26.00
Medium	20.00	28.00
Low	13.14	19.71

The effect of the treatment within groups, as measured by the pre- and posttests, was also found to be significant. The F value was 26.19, which has a probability of < 0.001.

No significant difference in gains was found between groups. The extent of the posttest gain was not correlated with membership of the high, medium, or low group. Although statistically these gains are not significantly different, as in Grade 8, the highest mean gain was made by the medium group, 8.00. However the lowest mean gain was made by the high group. This gain was 2.67. (See figure 5.) The low group had the lowest pretest mean score, and therefore the highest potential for gain, but this was not reflected in the mean gains.

Comparisons of the mean pre- and posttest scores of the high, medium, and low groups in each of the three schools shows that in School 1 a gain was made by the medium group (7) while the high and low groups each had a mean loss of 1. (See figure 6.) In schools 2 and 3 the highest mean gain was made by the low group. (See figures 7 and 8.)

As in Grade 8, the variations are wider when schools are considered separately, as the number in each group are smaller, and one very large or one very small gain or loss considerably influences the group mean score.

Also as in Grade 8, some of the pretest and posttest scores of students in the low group revealed extensive gains. For example, in School 2, one student in the low group had pre- and posttest scores of 10 and 26, a gain of 16, another had pre- and posttest scores of

Figure 5

Mean Pretest/Posttest Gains of Grade 9 Experimental High, Medium, and Low Groups

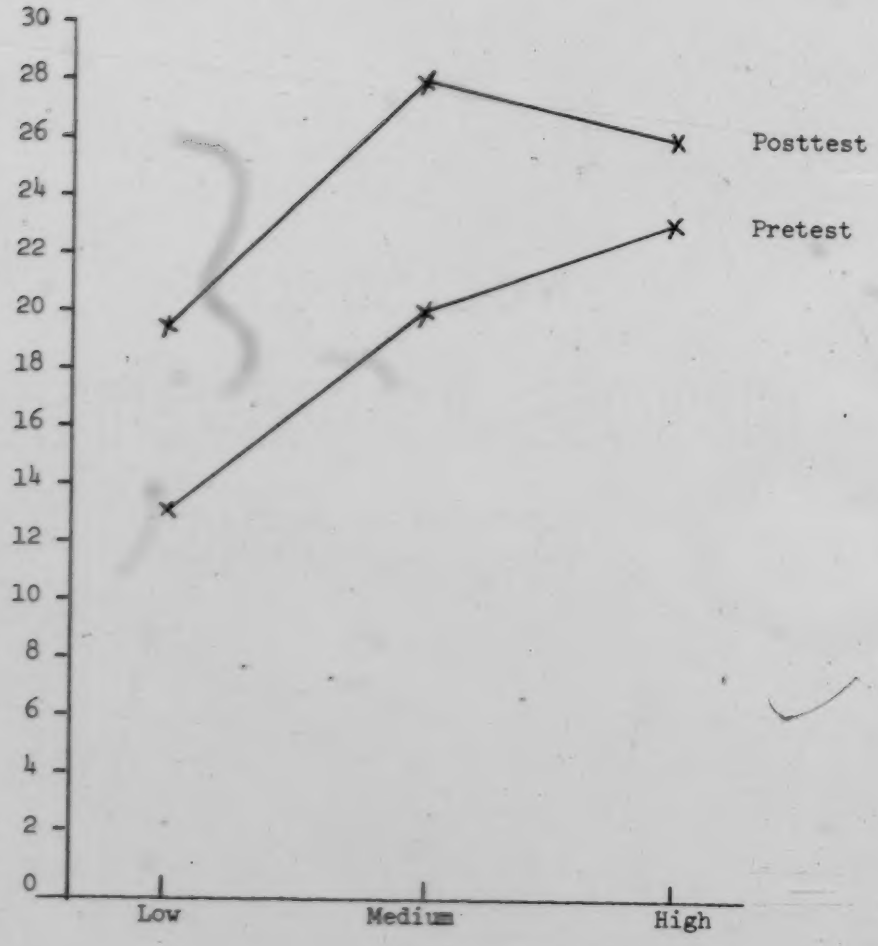


Figure 6

Grade 9 School 1: Mean Pretest/Postest Gains

of the Experimental High, Medium, and Low Groups

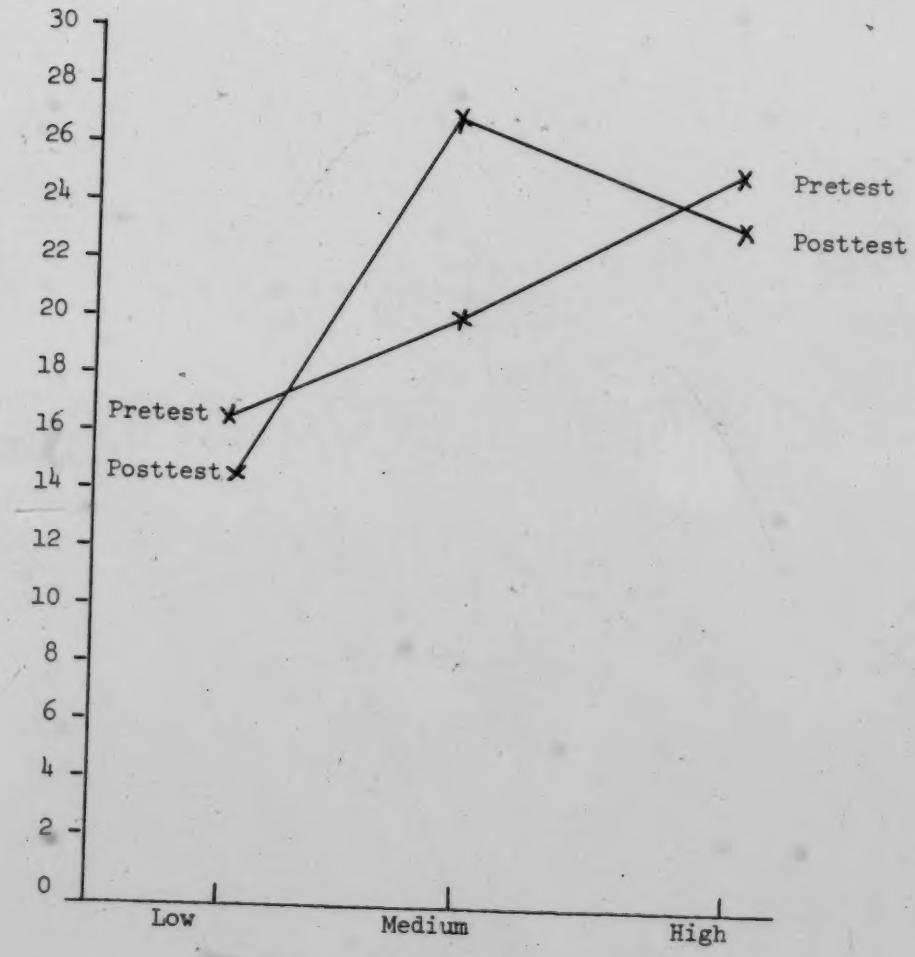


Figure 7

Grade 9 School 2: Mean Pretest/Posttest Gains of the Experimental High, Medium, and Low Groups

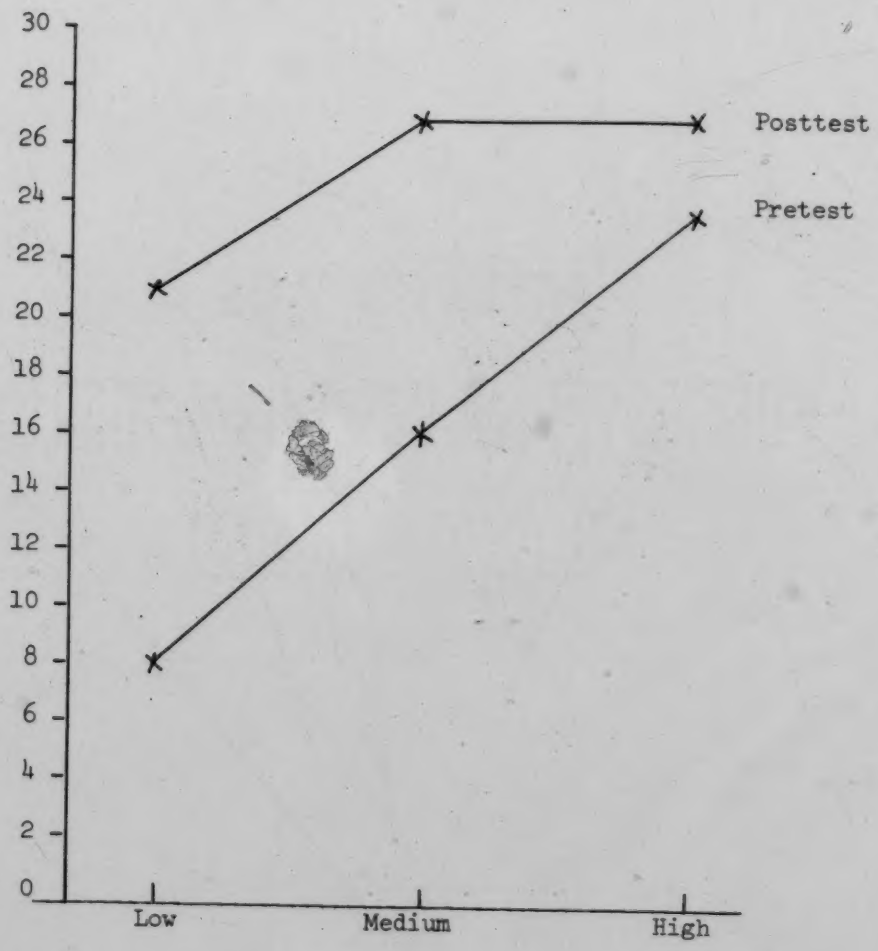
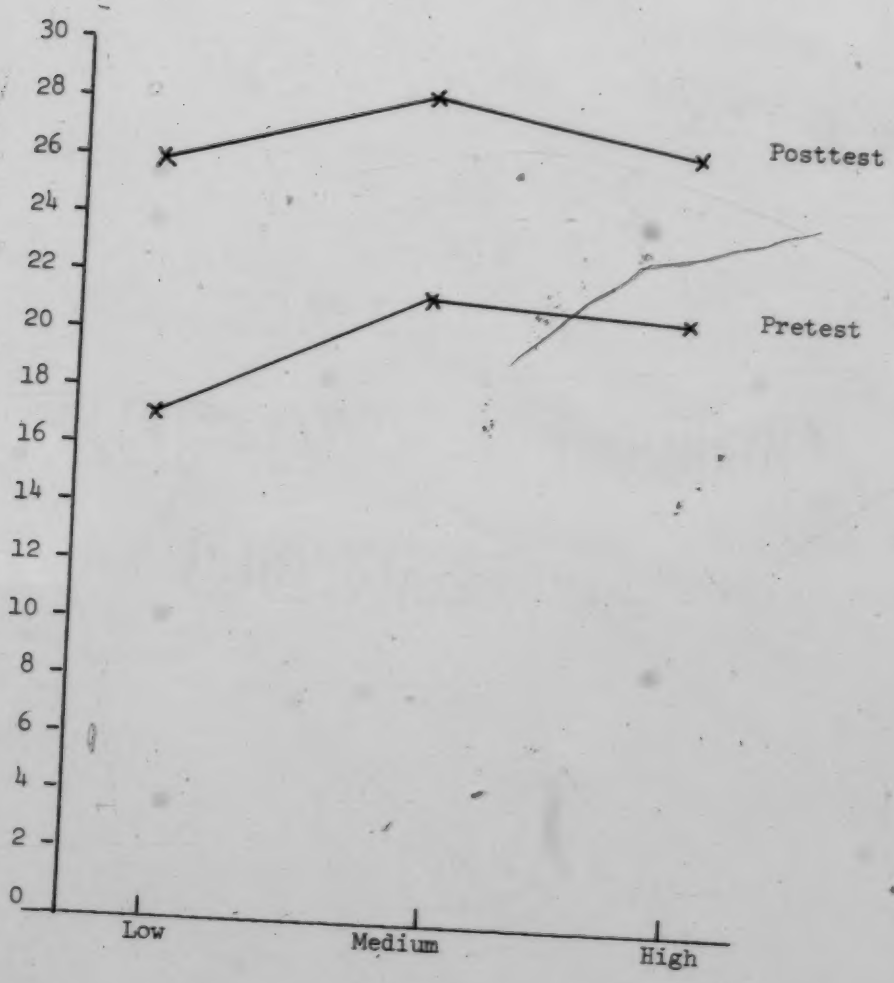


Figure 8

Grade 9 School 3: Mean Pretest/Posttest Gains of the Experimental High, Medium, and Low Groups



2 and 18, also a gain of 16. In School 3, one student in the low group had pre- and posttest scores of 14 and 28, a gain of 14, and another student had pre- and posttest scores of 12 and 26, also a gain of 14. As for Grade 8, it is possible to conclude that examination of the preferred learning styles and other characteristics of students who score considerably higher on the posttest than might have been expected from their achievement grouping, and from their scores on the pretest, might lead to the identification of common characteristics which could be used to predict which students might be expected to benefit significantly from the use of modules.

Since it was found that there is no significant difference between the mean pretest/posttest gains of students in the experimental high, medium, and low achievement groups in both Grade 8 and Grade 9, it is possible to accept the null hypothesis:

> There is no significant difference in pretest/posttest gains among groups of students categorised as having high, medium, or low achievement in French, as measured by term marks.

All students benefit equally from working on the modules, when mean scores for achievement groups are compared. However, as already stated, unexpectedly high gains were made by some students in the medium and low groups in both Grade 8 and Grade 9. No attempt was made in this study to isolate individual preferences for learning styles, or auditory/visual preferences, or preferred methods of learning grammar. It is possible that if such preferences and other characteristics, such as motivation, were established before students worked on a module, students with certain preferred learning styles,

auditory/visual preferences and preferred methods of learning grammar might be seen to benefit significantly from working on modules. If such correlations could be established it would be possible to predict which students might be expected to benefit significantly from working on modules.

In the next section students' responses to the question and their comments will be presented and discussed.

Responses to the Question and Comments

After working on the module, but before the posttest, students in the experimental groups were asked to answer in writing the question: "Do you think you have learned anything from working on the module?" This question was worded in general terms to avoid prompting students' replies. Students were also asked to add any comments they wished to make to amplify their replies, and to comment on any aspect of the module and working on the module.

Of the 33 students in the treatment groups in Grade 8, all stated that they felt they had learned something from working on the module, and all amplified their replies with additional comments.

Eleven students stated specifically that they had acquired a better understanding of the grammatical concept included in the module, i.e. possessive adjectives. Typical comments included:

> I have now learned how to use <u>son</u>, <u>sa</u>, <u>ses</u>, <u>leur</u> and <u>leurs</u>, in the proper way.
>
> I feel that I now more clearly understand possessive adjectives now that I have worked on this package.

A further twelve students, while not commenting specifically on possessive adjectives, stated that working on the module had helped them with problems. Typical replies included:

> I think that this package helped a lot with my difficulties that I had.
>
> This [module] would be really helpful to absent students because everything is self-explanatory and all three things [tape, student book and picture sheet] are put together.

These comments are particularly interesting. As has already been stated, students had not been given any special instructions about working on the module and were not aware that the module was being considered as a means of remedial teaching/learning. The fact that a third of the students perceived the module as a useful device for clarifying problem areas, and that a further third stated that the module had helped them to acquire the grammatical concept, suggests that the module could be useful for remedial work.

Approximately a third of the students stated that they found working on the module interesting and/or enjoyable. The following comments are representative of comments in this category.

> I enjoyed learning this way.
>
> I think this was really interesting.
>
> Probably because it was fun was why I really took time to think about it.

It is possible that the interest and enjoyment can be attributed in part to working on a module being a new experience for students. In order to ascertain whether the interest level is maintained, it would be necessary to investigate the interest level for a group of students after they had worked on several modules.

Eight students compared working on a module to their regular class, and stated that they preferred working on the module. These students stated that they had problems in class and that they found the module helpful and easy to understand. These comments suggest that working on modules could be a method of helping students who have difficulty reaching the required standard in class. This attitude is best summed up by the following comments:

> For the first time I learned something in French. In class I don't know what is happening, but I did like this.

> I learned more here than I do in class. If it could be brought into everyday French classes it would be great.

The comment that the module was clear and easy to understand was made by eight students. Typical replies included:

> It made it clear and easy to understand.

> The module was self-explanatory and the instructions were clear and well defined.

> The explanation was very good and I think that it will help me with my French in the future.

Three students stated that in addition to the grammar they had also learned new words.

Only one student offered criticism of the module, and this was qualified:

> I learned a lot. I would appreciate more of a text-book form however, for I don't enjoy working from Xeroxes.

Responses of students in the treatment groups in Grade 9 were similar to those of the Grade 8 students, but tended to be less detailed.

Of the 24 students in the treatment groups in Grade 9, 23 stated that they had learned something from working on the module. The remaining student felt that he had already acquired the concept:

> No, I have not learned anything from working on the module, because I've taken it [presumably direct object pronouns] before. But if I hadn't taken this before I would have learned a lot.

Thirteen students stated specifically that the module had helped them to understand direct object pronouns. Typical comments included:

> This helped me with the problems I had with le, la, les.
>
> I now understand le, la, les before the verb.

Two comments were particularly interesting as students isolated a specific problem which had been clarified as a result of working on the module:

> I now know when to use l' which I was confused about before.
>
> This was a good way to make sure you know the grammar. I learned that les may precede a vowel, before I had always changed it to l'.

Nine students commented that the module was interesting and eight students stated that they found it useful and/or helpful. Typical comments included:

> I found this interesting and very useful.
>
> This sort of activity is very helpful for review.
>
> This has really clarified this because I was away for part of the explanation in class and didn't really understand it.

The second and third comments indicate that some students perceive modules as an effective method of remedial teaching/learning.

The combination of tape, text and pictures was commented on by four students, all of whom stated that this combination made it easier for them to learn. These comments were in agreement with the responses of students in the pilot study, all of whom expressed a preference for a combination of tape, text, and pictures. Further research is needed to ascertain why students perceive this as the best combination, and also if it is in fact the most effective combination for all students. One possible line of approach would be to test students to find out whether they learn best aurally, or visually, or aurally and visually. Then each group could work on different combinations of tape, text and pictures to find out if a particular combination proved more effective for each group.

One comment on the combination of tape, text and pictures was particularly interesting:

> It is better to have the tape, text and pictures. I get nervous when I am asked questions in class and I learned more this way.

It is not possible to generalize on the basis of one comment, but future research could be undertaken to ascertain whether students who are diffident and find oral work in class threatening achieve better results and gain confidence as a result of working on modules.

Three students commented that they found the picture sheet useful in helping them to understand new words.

Only two criticisms of the module were made. One student stated that he found the exercises repetitive. The other criticism concerned the quality of the tape:

Try using better recording equipment. The tape was slightly unclear when listened to from the back of the room.

In the final chapter a summary, the implications of the study and suggestions for further research will be presented.

CHAPTER V

SUMMARY, IMPLICATIONS AND FURTHER RESEARCH

Summary

The aim of this study was to find out whether modules can be profitably employed in the remedial teaching and learning of French at the Junior High school level. The study was limited to written production in French on two grammatical units, possessive adjectives for Grade 8 and preceding direct object pronouns for Grade 9. Two similar modules were constructed, one for Grade 8 and one for Grade 9. Each module included a tape, text, and pictures, to accommodate individual visual and auditory learning preferences. Five different types of grammatical presentation and explanation were included in each module to accommodate individual preferences in methods of acquiring grammatical concepts. The grammatical presentations and explanations were divided into single-step units, each followed by self-correcting exercises. The results were analyzed to find out whether or not modules could be used to help students who had failed to reach the required standard in written production after the regular classroom presentation.

Three classes of Grade 8 and three classes of Grade 9 students were given a pretest. All students who scored 27/30 or above were eliminated from the study, as they were judged to have already

reached the required standard. The remaining students in each class were matched on the basis of scores and then assigned at random to either the experimental or control group. Each of the experimental groups worked for two forty-minute periods on a module. Posttests were then given to each of the six classes. A total of 115 students participated in the experiment.

Analysis of variance of the scores of the experimental and control groups on the pre- and posttests was carried out to determine any statistically significant difference between the experimental and control group mean scores on the posttest controlled for differences on the pretest. Analysis of variance of the mean scores of the experimental high, medium, and low achievement groups on the pre- and posttests was carried out to determine any statistically significant difference in pretest/posttest gains among students categorized as having high, medium, or low achievement in French, as measured by term marks. Finally, students' replies to a question and their comments were compared to determine whether students perceived the module as a good device for acquiring the concept.

The analysis of variance of the mean scores of the experimental and control groups on the pre- and posttests yielded statistically significant results. The experimental groups in both Grades improved significantly on the posttest when compared to the control groups.

The second analysis of variance did not reveal statistically significant differences in gains by the experimental high, medium, and low achievement groups.

Comparison of students' replies to the question and of their comments revealed that students regarded working on a module favorably, and with only one exception perceived the module as a good device for acquiring the concept.

Since the sample was selected at random, the findings can probably be generalized to other Grade 8 and 9 classes in a similar population.

Implications

The results of the present study indicate that modules can be used to help those students who have failed to reach the required standard in written production after the regular class presentation of a grammatical unit. Therefore teachers should consider the use of modules for the remedial teaching and learning of grammatical units at the Grade 8 and 9 levels. Modules can be produced relatively cheaply by the classroom teacher. They can be given to those students who have difficulties to work on individually, and thus regular class time need not be devoted to remedial work for a small group of students. Teachers could work in groups and each teacher could produce one or two modules, which could be put into a common pool and made generally available. Such a procedure would reduce the amount of time each individual teacher devoted to the preparation of modules.

Unfortunately it is not possible to assess exactly for the present study to what extent each of the different components of the module is responsible for the improved scores of the experimental

groups on the posttests. The modules contained a combination of tape, text, and pictures to accommodate different visual and auditory learning preferences. Students' replies to the questionnaire after the pilot study indicated that all students involved in the pilot study preferred this combination. Also, several students involved in the main study made comments expressing a preference for this combination. Typical comments were:

> The pictures and tape helped make this very clear.
>
> I think the way this was taught with the booklet and pictures and tape made it easier to understand.
>
> I liked the tape and pictures. They helped me to understand new words. Without the tape and pictures I probably would never have guessed some of them.

On the basis of such comments, it is hypothesized that the pictures and tape acted as reinforcers, helping to clarify the written text. However, in order to assess if tape, pictures, and text is the best combination, other combinations should be tested.

Five methods of grammatical explanation and presentation were used in the modules to accommodate individual differences. The methods were: pictures with captions in French, diagrammatic presentations in French, explanation in French, explanation in English, and comparison between French and English constructions. Although eleven students in Grade 8 and 13 students in Grade 9 commented that the grammatical explanations were clear, and/or easy to understand, and/or helpful, it is not possible to estimate the extent to which each type of explanation or presentation contributed to each student's improved performance on the posttest. In order to ascertain whether it is

preferable to include all five methods in each module, or whether some should be eliminated or replaced by other methods for maximum efficacy, modules containing different combinations could be prepared and tested.

Analysis of variance of the mean scores of the experimental high, medium, and low achievement groups revealed no statistically significant differences in mean posttest gains for the three groups. However, as has already been stated, some students in the low group in each grade had unexpectedly high posttest gains, and isolating the learning styles and other characteristics of such students might lead to the isolation of common characteristics which would enable predictions to be made indicating which students might be expected to benefit significantly from the use of modules. In this respect, since replies to the question and comments were made anonymously, it is not possible to isolate the replies and comments of students in the low groups who had unexpectedly high posttest gains. However it is at least possible that included in this group were students who stated that they found working on modules preferable to the regular French class. It is possible, for example, that students who stated that they were embarrassed answering oral questions in class and preferred working on the module were among those who made high gains on the posttest, after working on the module.

Students' replies to the question and their comments indicated that students' reactions to working on the module were positive and that they perceived the module as a good device to acquire the concept. It is possible that the enthusiasm students expressed for

working on modules was due in part to this being a new experience for them. In order to ascertain whether this enthusiasm is sustained, it would be necessary to compare students' reactions after they had worked on several modules.

Comments made by students could also be a useful means of estimating the efficacy of modules designed by classroom teachers. The teacher could also use modules as a means of isolating items which students had not understood after the regular class presentation. For example, one Grade 9 student commented that the module had shown him that les should not be replaced by l' before a verb beginning with a vowel, which had not been clear to him from the class presentation. Such comments could help the teacher to modify the way in which grammatical concepts were presented and explained to the class.

For Further Research

In order to complement what has been achieved and discovered in the present study about the use of modules in helping students to reach the required standard in written production on grammatical units, the following points for further research are suggested:

1. In order to substantiate or refute the findings reported in this study, replication of the experiment is desirable. Replication of the study with a larger sample would be recommended.

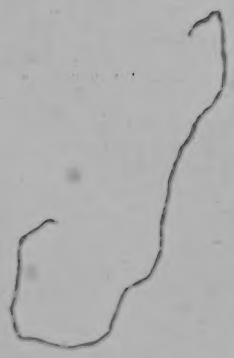
2. A longitudinal study could be conducted, using a number of modules, to ascertain whether the level of attainment is maintained or diminished when students work on several modules.

3. Since this study did not attempt to isolate which combination of aural/visual presentation is most effective, further research could be directed to discovering whether the combination of tape, text, and pictures is preferable to other combinations.

4. On the basis of the present study the investigator is unable to determine whether each of the five methods of grammatical presentation and explanation contributed equally to students' acquisition of the concepts. It is hypothesised that as students have different learning styles, all five methods were necessary to accommodate individual differences. Further research is needed to determine whether student acquisition of the concepts is affected by decreasing the number of grammatical presentations and explanations. Parallel modules which included different numbers and combinations of grammatical presentations and explanations could be constructed and given to different groups of students. The results could then be compared to enable the most effective combination to be isolated.

5. Further research is needed to determine the usefulness of modules designed to increase vocabulary or to present culture.

6. Further research is needed to compare modules, homework, individual attention and practice as remedial teaching and learning devices. Groups of students could work on each alternative for the same length of time, to determine which method is most efficacious within a given time.



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APPENDIX A

GRADE 8 MODULE

Les vacances

Objectives

After studying this module you should be able to:

1. Recognise the possessive adjectives: - son (his, her, its)
   - sa (his, her, its)
   - ses (his, her, its)
   - leur (their)
   - leurs (their)
2. Use these possessive adjectives correctly when writing answers to questions in French.
3. Recognise the possessive adjectives: - mon, ma, mes (my)
   - ton, ta, tes (your)
   - notre, nos (our)
   - votre, vos (your)

Activities

1. Listen to the tape account "Les vacances" while looking at the accompanying picture sheet. You may listen more than once if you wish.
2. Listen to the tape. You will hear questions and answers referring to specific pictures.
3. Read the text "Les vacances" with the picture sheet. Possessive adjectives are underlined.
4. Study CAREFULLY the explanation of grammar (pages 3, 4, and 5).
5. Please read these instructions VERY CAREFULLY. There are 4 exercises (pages 6, 7). After completing each exercise collect an answer sheet and check your answers. If you have more than one mistake, re-read the grammar section and then repeat the exercise, before beginning the next exercise. Please note ① 1. means use picture ① to help you answer question 1.
6. Study carefully the explanation of grammar (page 8).
7. Do exercises 5, 6, 7, 8 (pages 9, 10). Follow instructions given in section 5 above.
8. Listen to the tape "Dialogue," while looking at picture 6.
9. Read the explanation of grammar (page 11).

Les vacances

1. Voici la famille Lamartine. M. et Mme. Lamartine ont trois fils, Pierre, qui a onze ans, Jean-Jacques, qui a dix ans et Roger, qui a sept ans. Le petit chien s'appelle Toto. Ils habitent à Edmonton.

2. Mais aujourd'hui ils partent en vacances. Ils vont faire du camping. Pierre et Jean-Jacques apportent leurs chaises. M. Lamartine met sa chaise dans la voiture. Roger apporte la tente.

3. Après un assez long voyage on arrive au terrain de camping. M. Lamartine monte les tentes. Pierre apporte son sac de couchage. Et qui est-ce qui prépare le souper pour les enfants? Eh bien, c'est Mme. Lamartine qui prépare leur souper.

4. Après le souper les enfants jouent au baseball. Jean-Jacques porte son gant. Il est sur le point de lancer sa balle. Pierre tient son bâton. Toto regarde les enfants.

5. Le jour suivant, la famille Lamartine va à la piscine. Pierre et Jean-Jacques aiment nager. Roger ne sait pas nager, mais il s'amuse dans l'eau quand même. Mme. Lamartine ne nage pas. Elle regarde ses enfants. Elle a les serviettes des enfants. Elle tient leurs serviettes à la main.

6. L'après-midi tout le monde s'amuse. Mme. Lamartine lit son livre. Roger a ses crayons et son cahier. Il dessine. Pierre et Jean-Jacques ont leurs raquettes. Ils vont jouer au tennis. Et M. Lamartine? Il est occupé lui aussi? Mais bien sûr--il se repose!

Explanation of grammar (1) - son, sa, ses

LE livre de Pierre - C'est SON livre.

LE livre de Marie - C'est SON livre.

LA bicyclette de Pierre - C'est SA bicyclette.

LA bicyclette de Marie - C'est SA bicyclette.

LES livres de Pierre - Ce sont SES livres.

LES livres de Marie - Ce sont SES livres.

LES bicyclettes de Pierre - Ce sont SES bicyclettes.

LES bicyclettes de Marie - Ce sont SES bicyclettes.

---

le livre de Pierre
le livre de Marie
> son livre

la bicyclette de Pierre
la bicyclette de Marie
> sa bicyclette

N.B. In French, the possessive adjective takes the same gender (masculine or feminine) as the possessed object.

Note: In English:

Pierre's book - his book

Marie's book - her book

So, in English, the possessive adjective (his/her) agrees with the person who possesses.

NOT SO IN FRENCH:

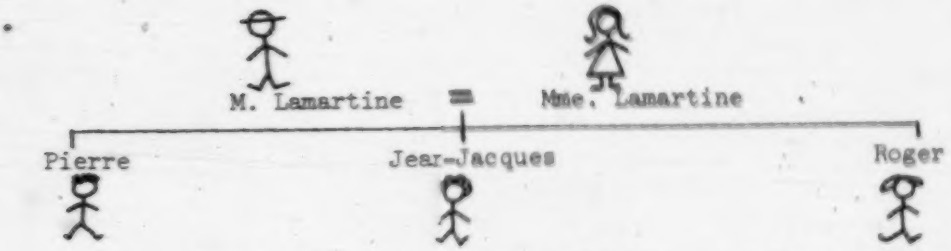
The possessive takes the same gender (masculine or feminine) and the same number as the POSSESSED person or thing.

So, "son livre" can mean "his book" or "her book" - See below.

ENGLISH	FRENCH
MARIE'S book - HER book	LE livre de Marie - SON livre.
PIERRE'S book - HIS book	LE livre de Pierre - SON livre.
	(so, in French, son = his, or her, or its, before a masculine singular word)
MARIE'S bicycle - HER bicycle	LA bicyclette de Marie - SA bicyclette
PIERRE'S bicycle - HIS bicycle	LA bicyclette de Pierre - SA bicyclette
	(so, in French, sa = his, or her, or its, before a feminine singular word)
MARIE'S books - HER books	LES livres de Marie - SES livres
PIERRE'S books - HIS books	LES livres de Pierre - SES livres
MARIE'S bicycles - HER bicycles	LES bicyclettes de Marie - SES bicyclettes
PIERRE'S bicycles - HIS bicycles	LES bicyclettes de Pierre - SES bicyclettes
	(so, in French, ses = his, or her, or its, before a masculine or feminine plural word).

EXCEPT une école - SON école
une orange - SON orange

RULE: Use SON (instead of SA) before a feminine singular word which begins with a vowel or mute 'h'.



Voici M. Lamartine

Voici Pierre. Pierre est le fils de M. Lamartine. C'est son fils (his son)

Voici M. Lamartine

Qui est Jean-Jacques?
- C'est son fils. (his son)

Voici Mme. Lamartine

Pierre est le fils de Mme Lamartine.
C'est son fils. (her son)

Voici Mme. Lamartine

Qui est Roger?
- C'est son fils. (her son)

Voici Mme. Lamartine et son fils. (her son)

Voici M. Lamartine et son fils. (his son)

Voici Pierre et son père. (his father)

Voici Pierre et sa mère. (his mother)

Voici Mme. Lamartine et ses fils. (her sons)

Exercise 1

Answer the questions, using the correct form of the possessive adjective (son, sa, or ses) in your answers. Use picture ① to help you.

Example: M. Lamartine est le père de Pierre? - Oui, c'est son père.

1. Mme. Lamartine est la mère de Roger? Oui, ...
2. M. Lamartine est le père de Jean-Jacques? Oui,. . . . . .
3. Roger et Pierre sont les fils de M. Lamartine? Oui, ...
4. Roger est le frère de Jean-Jacques? Oui, ...
5. Mme. Lamartine est la mère de Pierre? Oui, ...

Exercise 2

Answer the questions, using the correct form of the possessive adjective in your answers.

Example: Voici Mme. Lamartine. Qui est Roger?
- C'est son fils.

1. Voici Mme. Lamartine. Qui est Pierre? . . . . . .
Qui sont Roger et Jean-Jacques? . . . . . .
. . . . . .

2. Voici Roger. Qui est Mme. Lamartine? . . . . . .
Qui est M. Lamartine? . . . . . .
Qui sont Jean-Jacques et Pierre? . . . . . .
. . . . . .

Exercise 3

Answer the questions, using the correct form of the possessive adjective in your answers.

Example: ① 1. Pierre est le fils de M. Lamartine?

- Oui, c'est son fils.

① 1. Toto est le chien de Pierre? Oui, ...

② 2. C'est la balle de Jean-Jacques? Oui, ...

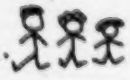
③ 3. Qu'est-ce que Mme. Lamartine fait? . . . . . .

④ 4. Ce sont les tentes de M. Lamartine? Oui, ...

⑤ 5. La tente est à Roger? Oui, ...

Exercise 4 Répondez:

1. C'est la raquette de Roger? . . . . . .

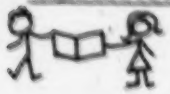
2.  Ce sont les enfants de Mme Lamartine? . . . . . .

3. C'est l'orange de Pierre? . . . . . .

4. C'est le bâton de Pierre? . . . . . .

5. Ce sont les livres de Roger? . . . . . .

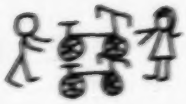
Explanation of grammar (2) - leur, leurs



le livre de Pierre et de Marie - C'est leur livre.

la bicyclette de Pierre et de Marie - C'est leur bicyclette.

les livres de Pierre et de Marie - Ce sont leurs livres.



les bicyclettes de Pierre et de Marie - Ce sont leurs bicyclettes.

le livre de Pierre et de Roger
le livre de Marie et de Claire → leur livre
le livre de Pierre et de Marie

la bicyclette de Pierre et de Roger
la bicyclette de Marie et de Claire → leur bicyclette
la bicyclette de Pierre et de Marie

Les livres de Pierre et de Roger → leurs livres
les livres de Marie et de Claire

Les bicyclettes de Pierre et de Roger → leurs bicyclettes
les bicyclettes de Marie et de Claire

RULE: The possessive adjective in French agrees in gender and number with the possessed object (or person).

Compare:

English Pierre's and Mary's book - their book.
Pierre's and Mary's books - their books.

French [LE] livre de Pierre et de Marie - [LEUR] livre.
[LES] livres de Pierre et de Marie - [Leurs] livres.

Voici M. et Mme Lamartine.

Voici Pierre. Pierre est le fils de M. et Mme. Lamartine. C'est leur fils.

Voici M. et Mme. Lamartine.

Qui sont Pierre et Roger? - Ce sont leurs fils.

Exercise 5

Answer the questions, using the correct form of the possessive adjective (leur or leurs) in your answers. Use picture ① to help you.

Example M. Lamartine est le père de Roger et de Pierre?

– Oui, c'est leur père.

1. Mme Lamartine est la mère de Roger et de Jean-Jacques? . . . . . .
2. M. Lamartine est le père de Roger et de Pierre? . . . . . .
3. M. et Mme. Lamartine sont les parents de Roger et de Pierre? . . . . . .
4. Roger est le frère de Pierre et de Jean-Jacques? . . . . . .
5. Pierre et Jean-Jacques sont les fils de M. et de Mme. Lamartine? . . . . . .

Exercise 6

Answer the questions using the correct form of the possessive adjective (leur or leurs) in your answers.

Example C'est le livre de M. et de Mme. Lamartine? – Oui, c'est leur livre.

② 1. Ce sont les chaises de Pierre et de Jean-Jacques et de M. Lamartine? . . . . . .

③ 2. Ce sont les enfants de M. et de Mme. Lamartine? Oui, ...

④ 3. Toto est le chien de Pierre et de Jean-Jacques? Oui, ...

⑤ 4. Mme. Lamartine a les serviettes des enfants? Oui, ...

Exercise 7

Answer the questions, using the correct form of the possessive adjective (son, sa, ses, leur or leurs)

1. C'est la bicyclette de Pierre? Oui, ...
2. C'est le livre de Roger et de Marie? Oui, ...
3. Ce sont les cahiers des étudiants? Oui, ...
4. C'est le stylo de Claire? Oui, ...
5. Ce sont les frères de Jeanne? Oui, ...
6. C'est l'école de Roger? Oui, ...

Exercise 8

Answer the questions using the correct form of the possessive adjective in your answers.

(1) 1. Pierre est le fils de M. et de Mme. Lamartine? . . . . . .

. . . . . .

(6) 2. Les crayons sont à Roger? . . . . . .

(4) 3. Le bâton est à Pierre? . . . . . .

(6) 4. Ce sont les raquettes de Pierre et de Jean-Jacques? . . . .

. . . . . .

(4) 5. C'est la balle de Jean-Jacques? . . . . . .

Explanation of grammar (3) mon, ton, notre, votre

LE livre — Tu as ton livre? - Oui, j'ai mon livre.

LA balle — Tu as ta balle? - Oui, j'ai ma balle.

LES livres — Tu as tes livres? - Oui, j'ai mes livres.

LES balles — Tu as tes balles? - Oui, j'ai mes balles.

REMEMBER possessive adjectives agree in number and gender with the POSSESSED object (or person).

	Masc. Sing.	Fem. Sing.	M. and F. Plural
my	mon	ma	mes
your	ton	ta	tes
his/her/its	son	sa	ses
our	notre	notre	nos
your	votre	votre	vos
their	leur	leur	leurs

APPENDIX B

Scores of the Grade 8 Students on the Pre- and Posttests

EXPERIMENTAL GROUP

ID	Pretest Score	Posttest Score
001	24	30
002	22	30
003	18	21
004	17	26
005	16	28
006	16	30
007	15	24
008	12	20
009	9	13
010	8	14
011	2	27
012	23	30
013	21	29
014	19	30
015	16	30
016	15	14
017	13	20
018	13	25
019	12	17
020	11	21
021	5	5
022	4	26
023	2	13
024	23	28
025	20	30
026	18	19
027	18	30
028	17	27
029	15	26
030	14	25
031	12	9
032	10	24
033	3	30

CONTROL GROUP

ID	Pretest Score	Posttest Score
034	26	25
035	21	24
036	21	30
037	19	21
038	18	18
039	16	25
040	16	18
041	15	18
042	15	23
043	10	9
044	9	7
045	4	8
046	23	22
047	22	28
048	21	26
049	19	24
050	16	14
051	13	14
052	12	12
053	12	11
054	6	12
055	3	8
056	26	28
057	24	20
058	22	26
059	18	12
060	18	14
061	17	27
062	16	18
063	15	14
064	13	24
065	13	9
066	11	16
067	6	12

Scores of the Grade 9 Students on the Pre- and Posttests

EXPERIMENTAL GROUP

ID	Pretest Score	Posttest Score
068	26	28
069	24	28
070	24	20
071	22	22
072	22	30
073	20	28
074	16	26
075	10	8
076	26	28
077	24	26
078	22	26
079	16	22
080	14	28
081	10	26
082	8	16
083	2	18
084	26	28
085	26	30
086	24	30
087	24	28
088	22	26
089	18	26
090	14	28
091	12	26

CONTROL GROUP

ID	Pretest Score	Posttest Score
092	26	28
093	26	22
094	24	26
095	22	2
096	22	14
097	22	24
098	18	24
099	16	20
100	16	2
101	26	18
102	24	22
103	22	18
104	20	22
105	14	6
106	10	8
107	8	18
108	6	6
109	26	28
110	26	30
111	26	18
112	24	26
113	24	26
114	18	18
115	14	20